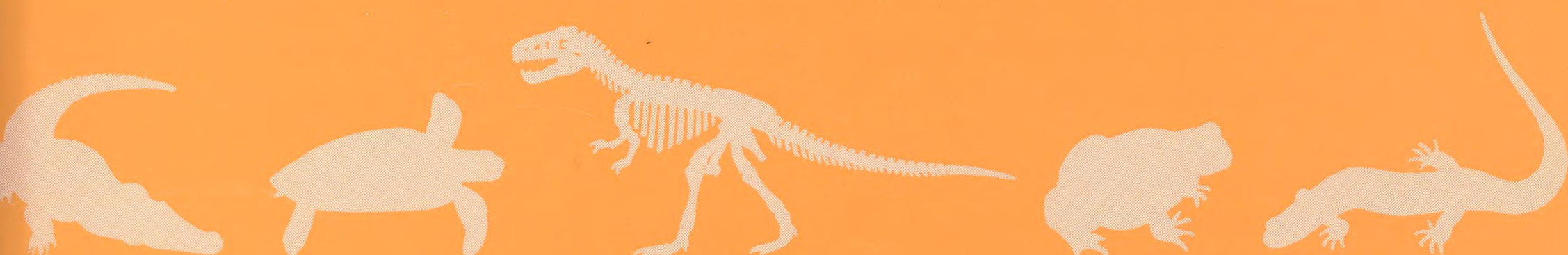




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Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 64, part 4, 20 December 2007) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3440: *Atrichornis* Stejneger, 1885 (Aves, ATRICHORNITHIDAE): proposed conservation. R. Schodde & W.J. Bock.

CASE 3442: *Columba norfolciensis* Latham, 1801 (Aves, COLUMBIDAE): proposed suppression. R. Schodde & W.J. Bock.

CASE 3443: *Tentyria* Latreille, 1802 (Insecta, Coleoptera): proposed conservation of usage. P. Bouchard, I. Löbl & M. Lillig.

CASE 3444: *Chelonibia testudinaria* (Linnaeus, 1758) (Crustacea, Cirripedia): proposed conservation of usage by designation of a neotype of *Lepas testudinaria* Linnaeus, 1758. M.G. Frick.

CASE 3445: *Cylindrolepas darwiniana* Pilsbry, 1916 (Crustacea, Cirripedia): proposed conservation of genus and species by designation of a neotype. M.G. Frick.

CASE 3446: *Anolis chrysolepis* Duméril & Bribron, 1837 (Sauropsida, Squamata): proposed conservation. C.W. Myers.

CASE 3447: *Paraelops cearensis* Silva Santos, 1971 (Teleostei, Elopomorpha): redefinition of holotype. F.J. Figueirado et al.

CASE 3448: *Hornera frondiculata* Lamouroux, 1821 (Bryozoa, Cyclostomata): proposed conservation. A. Smith, P.D. Taylor & H.G. Spencer.

CASE 3449: *Diomedea melanophris* Temminck, 1828 (Aves): proposed correction. C.J. Carlos

CASE 3450: *Polyommatus castro* Reakirt, 1866 (Insecta, Lepidoptera): proposed replacement of lectotype. J.A. Scott.

CASE 3451: *Sitticus* Simon, 1901 (Arachnida, Araneae): proposed conservation. J. Prószyński.

CASE 3452: Synapsida Schmidt, 1852 (Mammalia): proposed replacement by Monapsida Willis 2000. E.O. Willis.

The International Commission on Zoological Nomenclature

The aim of the Commission is to bring stability to the use of animal names (zoological nomenclature). The Commission does this by:

(a) producing, publishing and periodically revising the *International Code of Zoological Nomenclature* (the Code), which deals with the formulation and use of animal names;

(b) considering and ruling on specific cases of nomenclatural uncertainty and dispute about animal names that are not automatically resolved under the provisions of the Code, via applications published in the *Bulletin of Zoological Nomenclature*.

The International Congress of Zoology founded the Commission in 1895. At present, the Commission consists of 24 zoologists from 18 countries whose interests cover most of the main divisions, including palaeontology, of the animal kingdom. The Commission is under the patronage of the International Union of Biological Sciences (IUBS). Commission members are elected by the vote of zoologists attending General Assemblies of the IUBS or other appropriate congresses. Nominations for membership may be sent to the Executive Secretary at any time. The Commission's history is described in *Towards Stability in the Names of Animals* (1995) (see below under 'Publications' for details). Further discussion of the Commission's activities can be found in BZN 48: 295–299 (December 1991) and BZN 60: supplement, pp. 1–12 (March 2003).

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The International Trust for Zoological Nomenclature (the Trust) was founded in 1947 to manage the Commission's financial matters. It is a registered charity, based in the U.K. (No. 211944). At present, the Trust consists of 29 members from 14 countries. Discussion of the Trust's activities can be found in BZN **60**: supplement, pp. 1–12 (March 2003).

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The International Code of Zoological Nomenclature

The aim of the Code is to provide the greatest universality and continuity in the scientific names of animals without restricting the taxonomy or classification of the animals for which the names are used. The current (fourth edition) of the Code was published by the Trust in English and French in 1999, and came into effect on 1 January 2000; this edition supersedes all previous editions. Official texts are available in Catalan, Chinese, Czech, German, Japanese, Russian, Spanish and Ukrainian. See below under 'Publications' for sales details.

The Articles of the Code enable the user to decide the valid name for any animal taxon between and including subspecies and superfamily. The provisions of the Code can be waived or modified in particular cases where strict adherence would cause confusion. However, only the Commission, acting on behalf of all zoologists, can do this in response to formal applications that are published in the *Bulletin*.

The Bulletin of Zoological Nomenclature

The *Bulletin* is published four times each year at the end of March, June and September and mid-December. The *Bulletin* includes Applications relating to animal names, Comments on Applications, and Opinions giving the Commission's eventual rulings based on the Commissioners' votes. Each Opinion published in the *Bulletin* is an official ruling of the Commission and comes into effect on the day of publication of the *Bulletin*. The Opinions are summarised in the *Official Lists and Indexes of Names and Works in Zoology*. The *Bulletin* also includes papers on general nomenclatural issues and proposed amendments to the Code. See below under 'Publications' for how to subscribe to the *Bulletin* and for details about the *Official Lists and Indexes of Names and Works in Zoology*.

Publications

All publications listed below may be ordered from: ITZN, c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk). With the exception of the *Bulletin* (which can only be ordered from ITZN), these publications can also be ordered from the American Association for Zoological Nomenclature (AAZN), Alfred L. Gardner, USGS Patuxent Wildlife Research Center, National Museum of Natural History, PO BOX 37012, ROOM 378 MRC 111, WASHINGTON DC 20013-7012 U.S.A. (e-mail: gardnera@si.edu).

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The *Official Lists and Indexes of Names and Works in Zoology* gives details of all the names and publications on which the Commission has ruled since it was set up in 1895. The first volume published in 1987 contains 9917 entries, and a Supplement (2001) lists an additional 2385 entries. The cost of the 1987 volume and of the Supplement is £35 or US\$50 or €70 each, with reductions for both volumes ordered together and for individual buyers for personal use. Details available on request.

Towards stability in the names of animals—a history of the International Commission on Zoological Nomenclature 1895–1995 was published in 1995 in recognition of the Commission's Centenary. This book of 104 pages contains 18 full-page illustrations, 14 being of eminent zoologists who played a crucial part in the development of animal nomenclature. The cost is £15 or US\$30 or €20.

Commissioner Prof. D.X. Song

We deeply regret to announce the death of Commissioner Prof. D.X. Song on January 25, 2008 at the age of 73. Prof. Song was a specialist on Hirudinea. He was a researcher in the Division of Systematic & Evolutionary Zoology at the Institute of Zoology of the Chinese Academy of Sciences and a professor in the Hebei University in Beijing, China. The Commission and Secretariat send condolences to Prof. Song's family and colleagues.

Corrigendum to Opinion 2185 (Case 3340). *Heliacus* d'Orbigny, 1842 (Mollusca, Gastropoda): conserved (BZN 64: 263–264)

This Opinion included a summary statement implying criticism of the thoroughness with which the authors of the application had researched the dates of publication of the names involved, and attributing comments of this kind to 'several Commissioners'. Actually, two Commissioners had expressed a wish for more detail on the steps which had been taken to try to establish the dates. The Secretariat regrets any negative impression about the abilities and professionalism of the applicants which may have been conveyed. We wish to assure Dr Bieler and Mr Petit that no criticism was intended and we welcome their further input into nomenclatural issues.

Case 3416***Murex rostratus* Olivi, 1792 (currently *Fusinus rostratus*; Mollusca, Gastropoda): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.5 of the Code, is to conserve the name *Murex rostratus* Olivi, 1792 (currently *Fusinus rostratus*) (Mollusca, Gastropoda, FASCIOLARIIDAE) in its prevailing usage by ruling that this name is not invalid by virtue of being a junior primary homonym of *Murex rostratus* Solander in Brander, 1766 (currently *Turricula rostrata*). The senior homonym is currently included in TURRIDAE and has not been considered congeneric with *Murex rostratus* Olivi, 1792 after 1899.

Keywords. Nomenclature; taxonomy; Mollusca; Gastropoda; FASCIOLARIIDAE; TURRIDAE; *Fusinus rostratus*; *Turricula rostrata*; gastropods; Mediterranean.

1. The species currently named *Fusinus rostratus* (Olivi, 1792) (Gastropoda, FASCIOLARIIDAE) was originally described as *Murex rostratus* based on a shell from the Mediterranean (Olivi, 1792, p. 153). Olivi's (1792) diagnosis was literally taken from the description by Ginanni (1757, p. 8) (see Ghisotti, 1978, p. 25).

2. Aartsen & Giannuzzi-Savelli (1992, p. 230) found *Murex rostratus* Olivi, 1792 to be a junior homonym of *Murex rostratus* Solander in Brander, 1766. They proposed that *Murex rostratus* Olivi, 1792 should be replaced by its oldest junior synonym *Murex sanctaeluciae* Salis-Marschlins, 1793 (p. 371) (currently *Fusinus sanctaeluciae*).

3. However, *Murex rostratus* Solander in Brander, 1766 (p. 21) and *Murex rostratus* Olivi, 1792, although primary homonyms, have not been considered congeneric after 1899 (Article 23.9.5 of the Code). In fact, *Murex rostratus* Solander in Brander, 1766 is not a species of *Fusinus*, and not even a member of the FASCIOLARIIDAE, but a fossil representative of the TURRIDAE Swainson, 1840 from the Eocene of England, assigned to the genus *Surcula* H. & A. Adams, 1853 by Vokes (1971, p. 92) and to the genus *Turricula* Schumacher, 1817 by Aartsen & Giannuzzi-Savelli (1992, p. 229).

4. Buzzurro & Russo (2007, p. 144), in their revision of the Recent Mediterranean *Fusinus* species, stressed that *Murex rostratus* Olivi, 1792 was universally considered as valid and consistently used by all authors, with *F. sanctaeluciae* (Salis-Marschlins, 1793) always regarded as a junior synonym until the proposal of the replacement name by Aartsen & Giannuzzi-Savelli (1992). After that proposal, the usage of the name *Murex rostratus* has been maintained by most authors (Templado et al., 1993, p. 66; Vio & De Min, 1994, p. 471; Delamotte & Vardala-Theodorou, 1994, p. 405;

1994b, p. 286; Bonfiglio et al., 1994, p. 143; Di Geronimo et al., 1994, p. 99; Giacobbe & Mondello, 1994, p. 145; Palazzi & Villari, 1994, p. 90; Panetta & Imperatrice, 1994, p. 39; Bodon et al., 1995, p. 40; Arduino et al., 1995, p. 77; Vera-Peláez et al., 1995, p. 111; Cecalupo & Quadri, 1996, p. 108; Vio & De Min, 1996, p. 210; Vazzana, 1996, p. 149; Giribet & Peñas, 1997, p. 51; Cirone et al., 1997, p. 165; Kotsoubas et al., 1997, p. 30; De Min & Vio, 1997, p. 249; Mancini, 1997, p. 38; De Min et al., 1997, p. 42; Hadjichristophorou et al., 1997, p. 14; Cauli & Bogi, 1998, p. 6; Leone et al., 1998, p. 344; Hadorn & Rolán, 1999, p. 44; Ardovini & Cossignani, 1999, p. 60; Vio & De Min, 1999, p. 171; Orr, 2000, p. 137; Gofas, 2000, p. 13; Chirli, 2000, pl. 49, fig. 4–12; Öztürk & Çevik, 2000, p. 35; Cachia et al., 2001, p. 22; Houart, 2001, p. 83; Costello et al., 2001, p. 193; Öztürk et al., 2001, p. 2; Ardovini & Cossignani, 2004, p. 173; Scarponi & Della Bella, 2004, p. 19; Brunetti & Vecchi, 2005, p. 4; Peñas et al., 2006, p. 41; CLEMAM Database, 2006), whereas the name *Fusinus sanctaeluciae* has been used by very few authors (Snyder, 2000, p. 174; Giannuzzi-Savelli et al., 2003, p. 185, 187, 189, figs. 373–381; Snyder, 2003, p. 181; Repetto et al., 2005, p. 187; Mallard & Robin, 2005, pl. 29).

5. The replacement of the well-established and almost universally accepted name *Fusinus rostratus* (Olivi, 1792) by the little used name *Fusinus sanctaeluciae* (Salis-Marschlins, 1793) would threaten stability and universality of the nomenclature of this group and cause confusion. Therefore the conservation of the former name in its prevailing usage is the best solution to avoid ambiguity.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) (1) to use its plenary power:

(a) to rule that the name *rostratus* Olivi, 1792, as published in the binomen *Murex rostratus*, is not invalid by virtue of being a junior primary homonym of *rostratus* Solander in Brander, 1766, as published in the binomen *Murex rostratus*;

(2) to place on the Official List of Specific Names in Zoology the following names:

(a) *rostratus* Olivi, 1792, as published in the binomen *Murex rostratus* Olivi, 1792, with the endorsement that it is not invalid by virtue of being a junior primary homonym of *rostratus* Solander in Brander, 1766, as published in the binomen *Murex rostratus* (FASCIOLARIIDAE);

(b) *rostratus* Solander in Brander, 1766, as published in the binomen *Murex rostratus* (TURRIDAE).

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Case 3417***Malmgrenia* McIntosh, 1874 (Annelida, Polychaeta, POLYNOIDAE): proposed conservation of usage by designation of *Malmgrenia andreapolis* McIntosh, 1874 as the type species**

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Abstract. The purpose of this application, under Article 81.1 of the Code, is to conserve the current usage of the widely used name *Malmgrenia* McIntosh, 1874 (a polynoid worm genus from the northern North Atlantic) by designation of *Malmgrenia andreapolis* McIntosh, 1874 as the type species of *Malmgrenia*. The type species of *Malmgrenia* is at present *Malmgrenia whiteavesii* McIntosh, 1874, which is virtually a nomen nudum. The type material of *Malmgrenia whiteavesii* McIntosh, 1874 has been lost and no other specimens referable to this species have been recorded. It is proposed that *Malmgrenia andreapolis* McIntosh, 1874 be designated as the type species of *Malmgrenia* to maintain the current usage of this generic name.

Keywords. Nomenclature; taxonomy; Polychaeta; POLYNOIDAE; *Malmgrenia*; *Malmgreniella*; *Malmgrenia whiteavesii*; *Malmgrenia andreapolis*; scale worm; northern North Atlantic.

1. The generic name *Malmgrenia* was first published on 1 April 1874 (fide Evenhuis, 2003) by McIntosh (1874a, p. 263) in the combination *Malmgrenia whiteavesii*, n. sp. for a specimen from the Gulf of St. Lawrence, Canada. This was the only species mentioned in connection with this generic name and is thus the type species of *Malmgrenia* McIntosh, 1874, a status that has been accepted by Hartman, 1959; Day, 1967; Fauchald, 1977; Uschakov, 1982 and Chambers & Muir, 1997 (Articles 12.2.6 and 68.3 of the Code).

2. The species *Malmgrenia whiteavesii* McIntosh, 1874 was poorly described by current standards ('a single small specimen ... segments are about twenty in number ... scales absent ... head is apparently eyeless'), although some detail is given about the chaetae. The specimen may have been a juvenile as it had only about 20 segments. Neither the species nor the genus were compared to other taxa. Hanley (1987, p.160) stated 'the original description [of *Malmgrenia whiteavesii*] is too vague to allow determination of the taxonomic status of this specimen', and on page 148 he implied that *Malmgrenia whiteavesii* was a nomen nudum, stating 'the genus *Malmgrenia* is currently invalid as it lacks a valid type species'. Pettibone (1993), having examined the type material of *Malmgrenia whiteavesii* (presumably during her

visit to the Natural History Museum, London in May–June 1967; the material is now apparently lost), implied it was a nomen dubium, stating ‘the type specimen in the BMNH consists only of fragments. The genus *Malmgrenia* is considered to be indeterminable’ and followed Hanley (1987) in rejecting the genus. Pettibone (1993) then reclassified many species previously referred to *Malmgrenia* and placed them in the previously monospecific genus *Malmgreniella* Hartman, 1967 (p. 37). This assignment was followed by Barnich & Fiege (2001).

3. Chambers & Muir (1997) considered that, based on the original description, *Malmgreniella dicirra* Hartman, 1967 (p. 37), the type species of *Malmgreniella*, had character states (e.g. two types of dorsal cirri) not found in *Malmgrenia*. Pettibone (1993) stated that *Malmgreniella* Hartman, 1967 sensu lato was close to *Harmothoe* Kinberg, 1855, but in her diagnosis of the genus *Malmgreniella* she mentioned lateral antennae with distinct ceratophores inserted terminoventrally, subterminally, or ventrally (converging midventrally). She also erected the new species *Malmgreniella liliana* Pettibone, 1993, in which all the neurochaetae were unidentate (whereas bidentate neurochaetae are a characteristic of *Harmothoe* Kinberg, 1855, and *Malmgrenia* sensu McIntosh, 1874). Later, the limits of the genus were further extended by the erection of the species *Malmgreniella fimbria* Branch, 1998. This species was described as having 16 pairs of elytra (species of the genera *Harmothoe* and *Malmgrenia* have 15 pairs of elytra). We consider that this use of the generic name *Malmgreniella* by Pettibone (1993), Branch (1998) and Barnich & Fiege (2003) encompasses a wide range of species and includes more than one genus.

4. We consider it desirable that the generic name *Malmgrenia* McIntosh, 1874 should be available for one of these genera. The name *Malmgrenia* has been used, either at generic or subgeneric level, for many years, e.g. in the descriptions of species (Willey (1902), Augener (1918), Berkeley (1923), Augener (1927), Uschakov & Wu (1959), Day (1960), Lagardère (1970), Knox & Cameron (1971), Intes & le Loeuff (1975), Kudenov (1975, 1977), Loshamn (1981) and Ozolinsh (1990)) and in important regional faunal works (Fauvel (1923), Day (1967), Uschakov (1982) and Chambers & Muir (1997)). These publications are widely used.

5. In a footnote, McIntosh (1874a) referred to his genus *Malmgrenia* as ‘a new one lately formed for certain British species’. It is clear that McIntosh intended some British species to be published before the Canadian species, although the first British species was actually published five months later, and the second about 21 months later. *Malmgrenia andreapolis* McIntosh, 1874 (p. 195) (published on the 1st September 1874, fide Evenhuis, 2003), was published with the description: ‘The scales have a persistent brown belt. Dorsal bristles terminated by a peculiar knob; ventral bifid, but the distal process is constituted by a modification of the knob’. The species is therefore easily identified by workers familiar with the British polynoid fauna. This brief description was repeated by McIntosh (1875, p. 117). Syntype specimens are in the Natural History Museum, London (BMNH 1921.5.1.510–511).

6. *Malmgrenia andreapolis* was described in further detail by McIntosh (1876, 377–378, pl. LXVII, figs. 20–23), along with *Malmgrenia castanea* McIntosh, 1876 (p. 376). This paper was read before the Zoological Society of London on the 19th May 1874 (six weeks after the publication of *M. whiteavesii*), but not published until January 1876 (as noted on the first page of the paper). Syntype specimens of

M. castanea are in the Natural History Museum, London (BMNH 1921.5.1.507, 1921.5.1.508, 1921.5.1.509).

7. The genus *Malmgrenia* was more fully characterised by McIntosh (1900, p. 379), using several more characters including 'Head . . . devoid of peaks, the median and lateral tentacles springing from the front . . .'. The exact method of insertion of the lateral antennae is now regarded as an important character in the classification of the family POLYNOIDAE (see Hanley, 1987; Chambers & Muir, 1997, for definitions). *Malmgrenia*, as described by McIntosh (1900), has lateral antennae laterally inserted. This means that the lateral antennae are inserted at the same level as the median antenna (and can be interpreted as 'springing from the front'), rather than being inserted below the median antenna (ventral insertion) or on forward projections of the prostomium (terminal insertion). As all three species (*Malmgrenia whiteavesii*, *Malmgrenia andreapolis* and *Malmgrenia castanea*) were described by McIntosh at roughly the same time (manuscripts prepared about 1874), it may be assumed that he had a clear idea of the generic characters.

8. We regard the generic name *Malmgrenia* McIntosh, 1874 as valid, but to avoid confusion we suggest that it would be better to accept *Malmgrenia andreapolis* McIntosh, 1874 as the type species and not *Malmgrenia whiteavesii* McIntosh, 1874, which is virtually a nomen nudum. Abandoning the generic name *Malmgrenia* McIntosh, 1874 would not be in the interests of nomenclatural stability, especially regarding the species *Malmgrenia andreapolis* McIntosh, 1874 and *Malmgrenia castanea* McIntosh, 1876. To the best of our knowledge, no other specimens of *Malmgrenia whiteavesii* have been reported. However, we are not proposing that *Malmgrenia whiteavesii* McIntosh, 1874 be placed on the Official Index of Rejected and Invalid Specific Names in Zoology, preferring that the name should remain available in case further specimens are discovered in the Gulf of St. Lawrence area which a future author might consider match McIntosh's description.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Malmgrenia* McIntosh, 1874 and to designate *Malmgrenia andreapolis* McIntosh, 1874 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Malmgrenia* McIntosh, 1874 (gender: feminine), type species *Malmgrenia andreapolis* McIntosh, 1874, as ruled in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *andreapolis* McIntosh, 1874 (specific name of the type species of *Malmgrenia* McIntosh, 1874), as ruled in (1) above.

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Case 3434

***Scleropauropus* Silvestri, 1902 (Myriapoda, Pauropoda): proposed conservation of usage by replacement of the holotype of the type species *Scleropauropus hastifer* Silvestri, 1902 with a neotype, and replacement of the holotype of *Scleropauropus lyrifer* Remy 1936 by designation of a neotype**

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Abstract. The purpose of this application, under Article 75.5 of the Code, is to conserve the usage of the name *Scleropauropus* Silvestri, 1902 for a group of pauropods (Myriapoda, Pauropoda) while also conserving as its type species the nominal species *S. hastifer* Silvestri, 1902, by replacing with the same neotype the unsuitable holotypes of both *S. hastifer* Silvestri, 1902 (type species by monotypy), and *S. lyrifer* Remy, 1936 (consistently, but erroneously treated as the type species of *Scleropauropus* since Remy (1957)).

Keywords. Nomenclature; taxonomy; Myriapoda; Pauropoda; *Scleropauropus*; *Scleropauropus hastifer*; *Scleropauropus lyrifer*; pauropods; Europe.

1. In his monographic account of Italian Pauropoda within Berlese's monumental study, '*Acari, Myriapoda et Scorpiones hucusque in Italia reperta*', Silvestri (1902, p. 66) described the genus *Scleropauropus* to accommodate the new species *S. hastifer* Silvestri, 1902 (p. 66, pl. 13), which is the type species by monotypy.

2. The genus has been universally accepted as valid, e.g. in the classic monographs of Verhoeff (1934) and Bagnall (1935), and another 30 species have been subsequently added to it. In its current imprecise circumscription, the genus is distributed worldwide. However, it has been recently shown (Scheller, 2007) that *Scleropauropus* is a heterogeneous mixture of species and, in a first effort to reduce it to a more natural assemblage, 17 species have been transferred to other genera.

3. This overdue but still unfinished redistribution of the nominal taxa originally described in *Scleropauropus* requires an unambiguous characterization of the type species. Unfortunately, the original description of *Scleropauropus hastifer* does not satisfy the requirements of modern pauropod taxonomy, which is based on subtle morphological characters only partially recorded in pauropod descriptions in Silvestri's times. This has been already noted by the first modern specialist of pauropods, P.A. Remy, who introduced two new subgenera within this genus, in a

paper where he still accepted Silvestri's species as the type species of *Scleropauropus* (Remy, 1942). Remy (1957) subsequently suggested that *Scleropauropus lyrifer* Remy, 1936 (p. 316) be fixed as the type species of this genus.

4. Remy's action was invalid because of the previous type species fixation of *S. hastifer* (see para. 1) by monotypy.

5. Silvestri's original type of *S. hastifer*, collected at Marino on the hills near Rome (Italy), is still preserved in that part of Silvestri's collection housed at Dipartimento di Entomologia e Zoologia Agraria at the University of Portici, Napoli (Italy). This type specimen has been recently examined by the senior author of this application. The specimen mounted on a slide and labelled 'Scleropauropus hastifer. Typus', is in very bad condition; the few characters still identifiable, as the position of a few tergal setae, are not enough for a satisfactory identification and redescription.

6. Due to the manipulations in preparing the original slides and the subsequent poor conservation, there is no chance to recover DNA samples from the two holotypes for mutual comparison or for comparison with fresh material. Nor is there any reasonable chance ever to check whether the two nominal taxa would eventually deserve synonymization. This has never been proposed, Silvestri's species having simply been cited as a nomen dubium. A way to stabilize taxonomic usage, while at the same time preserving Silvestri's original fixation of the type species, would be to set aside Silvestri's holotype of *S. hastifer* and to replace it with the holotype of *S. lyrifer* from Germany, Baden, Hausach, thus making the two nominal taxa objective synonyms. However, the holotype of *S. lyrifer* is, in turn, very poorly preserved and thus taxonomically uninformative. Therefore, Remy's nominal taxon would also require fixation of a neotype after setting aside the original holotype fixation. Topotypical material is not available and the likely occurrence in the proximity of the type localities of many pauropod species to which the original descriptions may apply suggest adopting a different solution to the problem of fixing the identity of the type species of *Scleropauropus*. A specimen preserved in the collections of the Muséum National d'Histoire Naturelle, Paris, together with the holotype of *S. lyrifer* Remy, 1936, can provide a solution. This specimen, labelled 'Scleropauropus lyrifer Remy ad. Montgaillard près Périgueux. Été 1946. F. Grandjean' was identified as *S. lyrifer* by Remy himself. We suggest, thus, that this specimen be fixed as the neotype for both nominal species, *Scleropauropus hastifer* Silvestri, 1902 and *S. lyrifer* Remy, 1936. Using this approach, Silvestri's nominal species will be preserved as the type species of the genus, while the latter's taxonomic meaning remains fixed around Remy's nominal species, according to usage. It is proposed that the existing but uninformative holotypes of *Scleropauropus hastifer* Silvestri, 1902 and *Scleropauropus lyrifer* Remy, 1936 be set aside and the specimen from France: Montgaillard près Périgueux specified above be designated as neotype of both species. No specimens of *Scleropauropus* have been collected in Italy after Silvestri's collecting of *Scleropauropus hastifer* near Rome more than a century ago. Although Silvestri (1902) recorded only one species from the type locality of *Scleropauropus hastifer*, it is very likely that there are some tens of pauropod species around Rome (the pauropod fauna of Italy is still largely unexamined).

7. It is important to clarify the concept of the genus *Scleropauropus* by establishing identity of its type species because of the need to distinguish it from several pauropod

genera (*Allopaupopus*, *Decapauropus*, *Juxtapauropus*, *Pauropus*, *Cauvetauropus* and *Nesopauropus*) that may occur together in the same place.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside the holotypes of *Scleropauropus hastifer* Silvestri, 1902 and *Scleropauropus lyrifer* Remy, 1936 and to designate as neotype of both species the specimen at the Muséum National d'Histoire Naturelle, Paris, labelled 'Scleropauropus lyrifer Remy ad. Montgaillard près Périgueux. Été 1946. F. Grandjean';
- (2) to place on the Official List of Generic Names in Zoology the name *Scleropauropus* Silvestri, 1902 (gender: masculine), type species by monotypy *Scleropauropus hastifer* Silvestri, 1902;
- (3) to place on the Official List of Specific Names in Zoology the name *hastifer* Silvestri, 1902, as published in the binomen *Scleropauropus hastifer* (specific name of the type species of *Scleropauropus* Silvestri, 1902, as defined by the neotype designated in (1) above);
- (4) to place on the Official Index of Rejected and Invalid Names in Zoology the name *lyrifer* Remy, 1936, as published in the binomen *Scleropauropus lyrifer* (a junior objective synonym of *Scleropauropus hastifer* Silvestri, 1902, as defined by the neotype designated in (1) above).

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Case 3429

CHARILAIIDAE Dirsh, 1953 (Insecta, Orthoptera): proposed precedence over PAMPHAGODIDAE I. Bolivar, 1916

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the usage of the name CHARILAIIDAE Dirsh, 1953 for a group of African grasshoppers. The name is threatened by a little used senior name PAMPHAGODIDAE I. Bolivar, 1916. The name CHARILAIIDAE Dirsh, 1953 has become widely accepted and is in prevailing usage. It is proposed that the name CHARILAIIDAE Dirsh, 1953 be given precedence over PAMPHAGODIDAE I. Bolivar, 1916.

Keywords. Nomenclature; taxonomy; Orthoptera; CHARILAIIDAE; CHARILAINAE; PAMPHAGODIDAE; PAMPHAGODINAE; *Charilaus*; *Pamphagodes*; *Charilaus carinatus*; *Pamphagodes riffensis*; grasshoppers; Africa.

1. Stål (1875, p. 26) established the generic name *Charilaus* and the species name *Charilaus carinatus* Stål, 1875 (p. 26), the type species by monotypy. Bolivar (1878, p. 429) established the generic name *Pamphagodes* and a species *Pamphagodes riffensis* I. Bolivar, 1878 (p. 430), the type species by monotypy.

2. Bolivar (1916, p. 6) established 'Sectio PAMPHAGODES' to include the genera *Pamphagodes* I. Bolivar, 1878, *Charilaus* Stål, 1875 and *Cephalacris* I. Bolivar, 1916 (now a synonym of *Charilaus*).

3. Dirsh (1953, p. 161) described CHARILAINAE as a new subfamily based on *Charilaus* Stål, 1875 and included *Hemicharilaus* Dirsh, 1953 and *Pamphagodes*. Dirsh (1956, p. 241) raised the group to family rank as CHARILAIIDAE.

4. Johnston (1956, p. 106) used PAMPHAGODINAE for the same group in a catalogue with no mention of an author for the subfamily name. However, Johnston (1968, p. 42) used CHARILAIIDAE.

5. Kevan (1961, p. 99; 1982, p. 372) noted the priority of PAMPHAGODIDAE I. Bolivar, 1916 over CHARILAIIDAE Dirsh, 1953.

6. Vickery (1997, pp. 8, 18, 19) recognized PAMPHAGODIDAE and CHARILAIIDAE as separate families. No other author has accepted separation above the genus level.

7. The only other publication known to the authors that uses a family-group name based on *Pamphagodes* is Grimaldi and Engel (2005, p. 210). The mention is limited to a list contained within a single sentence.

8. CHARILAIIDAE Dirsh, 1953 has become widely accepted as the name for this group of grasshoppers (see Dirsh, 1954, p. 671; 1961, p. 369; 1965, p. 54; 1975, p. 54, Eades, 1962, pp. 1–2; 1963, p. 133; 2000, p. 195, Uvarov, 1966, p. 398, Descamps, 1966, p. 118, White, 1967, Johnston, 1968, p. 42, Sharov, 1968, pp. 106, 108, Johnsen, 1990, p. 31, Otte, 1994, p. 215 and Bisby et al., 2004, 2005, 2006, 2007).

9. Various databases available over the Internet use CHARILAIIDAE Dirsh, 1953. The Orthoptera Species File Online (<http://orthoptera.speciesfile.org>) has consistently used CHARILAIIDAE. Species 2000, ITIS (Integrated Taxonomic Information System) and the US National Center for Biotechnology Information (including GenBank) use CHARILAIIDAE based on information received from the Orthoptera Species File. The GBIF (Global Biodiversity Information Facility) uses CHARILAIIDAE based on information received from Species 2000. The Tree of Life (<http://tolweb.org/Acridoidea/13290>) also uses CHARILAIIDAE.

10. Usage of either PAMPHAGODIDAE or CHARILAIIDAE has consistently referred to a group of grasshoppers found in Africa and currently containing five species placed in four genera.

11. The senior author consulted the members of the Orthoptera Species File Committee established by the Orthopterists' Society. All five committee members who responded recommend that CHARILAIIDAE be given precedence in order to maintain the prevailing usage. The only usage of a family-group name based on *Pamphagodes* as a valid name in a revisionary taxonomic work is Bolivar (1916). There is one other usage in a catalogue and four incidental mentions in works of a different nature. In addition there is concern that the similarity between PAMPHAGODIDAE and PAMPHAGIDAE (a closely related family with 451 species) would cause unnecessary continuing confusion.

12. The International Commission for Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the family-group name CHARILAIIDAE Dirsh, 1953 and other family-group names based on *Charilaus* Stål, 1875 are to be given precedence over PAMPHAGODIDAE I. Bolivar, 1916 and other family-group names based on *Pamphagodes* I. Bolivar, 1878 whenever their type genera are placed in the same family-group taxon;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Charilaus* Stål, 1875 (gender: masculine), type species by monotypy *Charilaus carinatus* Stål, 1875;
 - (b) *Pamphagodes* I. Bolivar, 1878 (gender: masculine), type species by monotypy *Pamphagodes riffensis* I. Bolivar, 1878;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *carinatus* Stål, 1875, as published in the binomen *Charilaus carinatus* (specific name of the type species of *Charilaus* Stål, 1875);
 - (b) *riffensis* I. Bolivar, 1878, as published in the binomen *Pamphagodes riffensis* (specific name of the type species of *Pamphagodes* I. Bolivar, 1878);
- (4) to place on the Official List of Family-Group Names in Zoology the following names:
 - (a) CHARILAIIDAE Dirsh, 1953 (type genus *Charilaus* Stål, 1875), with the endorsement that it is to be given priority over the name PAMPHAGODIDAE

- I. Bolivar, 1916 whenever their type genera are placed in the same family-group taxon;
- (b) CHARILAINAE Dirsh, 1953 (type genus *Charilaus* Stål, 1875);
- (c) PAMPHAGODIDAE I. Bolivar, 1916 (type genus *Pamphagodes* I. Bolivar, 1878), with the endorsement that it is not to be given priority over the name CHARILAIIDAE Dirsh, 1953 whenever their type genera are placed in the same family-group taxon;
- (d) PAMPHAGODINAE I. Bolivar, 1916 (type genus *Pamphagodes* I. Bolivar, 1878).

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Case 3424

PSEUDOCOCCINI Cockerell, 1905 (Insecta, Hemiptera): proposed precedence over SPHAEROCOCCINI Cockerell, 1899

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the usage of the family-group name PSEUDOCOCCINI Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840) for the mealybugs, a speciose group including many pests of agriculture, by giving it precedence over the senior family-group name SPHAEROCOCCINI Cockerell, 1899 (type genus *Sphaerococcus* Maskell, 1892).

Keywords. Nomenclature; taxonomy; Hemiptera; COCCOIDEA; PSEUDOCOCCINI; SPHAEROCOCCINI; *Pseudococcus*; *Sphaerococcus*; mealybugs.

1. Maskell (1892, p. 39) established the generic name *Sphaerococcus*, for the Australian legless mealybug species *S. casuarinae* Maskell, 1892 (p. 39), type species by monotypy.

2. Cockerell (1899, p. 389) placed *Sphaerococcus* and a group of additional legless mealybug genera in a new tribe SPHAEROCOCCINI of the family COCCIDAE Fallén, 1814 (p. 23).

3. Cockerell (1905, p. 193) erected the tribe PSEUDOCOCCINI within the COCCIDAE for *Pseudococcus* Westwood, 1840 (p. 448) and the other mealybug genera known at that time to occur in the Rocky Mountains of North America.

4. Lobdell (1930, p. 209) was the first to use the family name PSEUDOCOCCIDAE for the mealybugs (including SPHAEROCOCCINI) a practice subsequently followed by all entomologists. The name SPHAEROCOCCINI has never been used as a family name and has never been used outside of discussions of mealybug subfamily-level classification.

5. The history of the generic name *Pseudococcus* Westwood (1840, p. 448) is extremely complicated. Miller (1974) (BZN 31: 146–153) submitted a case to the Commission, and in Opinion 1247 (July, 1983, BZN 40: 77–80), the Commission placed *Pseudococcus* Westwood, 1840 (type species *Dactylopius longispinus* Targioni-Tozzetti, 1876) on the Official List of Generic Names in Zoology (Name Number 2188), and PSEUDOCOCCIDAE Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840) on the Official List of Family-Group Names (Name Number 555).

6. The adoption of SPHAEROCOCCINI in place of its junior synonym PSEUDOCOCCINI would change the name of one of the most commonly encountered pests of agriculture, and leave an enormous body of literature divorced from classification (as of 17 May 2007, 1080 publications in Zoological Record use the name PSEUDOCOCCIDAE). Article 35.5 does not apply in this case, as *P. longispinus* and *S. casuarinae* are in the same subfamily and tribe. We therefore propose that

family-group names based on *Pseudococcus* be given precedence over those based on *Sphaerococcus*. The family-group names based on *Sphaerococcus* would remain available for any coccidologist who may in the future consider the two type genera to belong to different family-group taxa.

7. To illustrate the prevalence of the name PSEUDOCOCCIDAE, the following references are provided: Ben-Dov, 1994; Miller et al., 2002; Bonnett & Hewitt, 2005; Gonzalez-Hernandez et al., 2005; Kondo et al., 2005; Wakgari & Giliomee, 2005; Hogendorp et al., 2006; Kaydan et al., 2006; Martinez-Ferrer et al., 2006; Williams & Moghaddam, 2007. A list of 499 additional references demonstrating the universal usage of the name PSEUDOCOCCIDAE is held by the Commission Secretariat and is available upon request.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the family-group name PSEUDOCOCCINI Cockerell, 1905 and other family-group names based on *Pseudococcus* Westwood, 1840 are to be given precedence over SPHAEROCOCCINI Cockerell, 1899 and other family-group names based on *Sphaerococcus* Maskell, 1892 whenever their type genera are placed in the same family-group taxon;
- (2) to place on the Official List of Generic Names in Zoology the name *Sphaerococcus* Maskell, 1892 (gender: masculine), type species by monotypy *S. casuarinae* Maskell, 1892;
- (3) to place on the Official List of Family-Group Names in Zoology the names:
 - (a) PSEUDOCOCCINI Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840), with the endorsement that it and other family-group names based on *Pseudococcus* are to be given precedence over SPHAEROCOCCINI Cockerell, 1899 and other family-group names based on *Sphaerococcus* Maskell, 1892 whenever their type genera are placed in the same family-group taxon;
 - (b) SPHAEROCOCCINI Cockerell, 1899 (type genus *Sphaerococcus* Maskell, 1892), with the endorsement that it and other family-group names based on *Sphaerococcus* are not to be given priority over PSEUDOCOCCINI Cockerell, 1905 and other family-group names based on *Pseudococcus* Westwood, 1840 whenever their type genera are placed in the same family-group taxon.

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Case 3422***Helops* Fabricius, 1775 (Insecta, Coleoptera, TENEBRIONIDAE): proposed conservation of usage by designation of *Tenebrio caeruleus* Linnaeus, 1758 as the type species**

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Abstract. The purpose of this application, under Article 70.2 of the Code, is to conserve the current usage of the widely used name *Helops* Fabricius, 1775 for a genus of tenebrionid beetles from Western Palaearctic, Nearctic and Neotropical Regions by designation of *Tenebrio caeruleus* Linnaeus, 1758 as the type species. The type species of *Helops* Fabricius, 1775 is at present *Tenebrio lanipes* Linnaeus, 1771 (currently *Stenomax lanipes*). The use of the original designation would seriously affect the nomenclatural stability of long-recognized generic and subtribal concepts in the tribe HELOPINI. It is proposed that all type fixations for the nominal genus *Helops* Fabricius, 1775 before that of *Tenebrio caeruleus* Linnaeus, 1758 by Hope (1840) be set aside.

Keywords. Nomenclature; taxonomy; Coleoptera; TENEBRIONIDAE; HELOPINI; HELOPINA; CYLINDRINOTINA; *Helops*; *Stenomax*; *Anteros*; *Helops lanipes*; *Tenebrio caeruleus*; darkling beetles; Western Palaearctic, Nearctic and Neotropical Regions.

1. Fabricius (1775, p. 257) introduced the generic name *Helops* for the following nine available species: *Tenebrio caeruleus* Linnaeus, 1758, *T. lanipes* Linnaeus, 1771, *Helops serratus* Fabricius, 1775, *H. equestris* Fabricius, 1775, *H. rufipes* Fabricius, 1775, *H. luridus* Fabricius, 1775, *H. ater* Fabricius, 1775, *T. quisquilius* Linnaeus, 1761 and *H. glaber* Fabricius, 1775. No type species was originally designated. Of these, only *Tenebrio caeruleus* Linnaeus, 1758 (p. 418) currently remains in *Helops*, which is the type genus of the tribe HELOPINI Latreille, 1802 and subtribe HELOPINA Latreille, 1802.

2. Latreille (1810, p. 429) subsequently designated *Tenebrio lanipes* Linnaeus, 1771 (p. 533) as the type species of *Helops* Fabricius, 1775. Latreille's type fixation was

overlooked by subsequent tenebrionid workers until Iablokoff-Khnzorian (1964) recognized that this was the first valid type species designation. *Tenebrio lanipes* Linnaeus, 1771 is a junior subjective synonym of *Tenebrio aeneus* Scopoli, 1763 (currently *Stenomax* (*Stenomax*) *aeneus*; tribe HELOPINI, subtribe CYLINDRINOTINA Español, 1956); synonymy by Schawaller (1995). *Tenebrio lanipes* Linnaeus, 1771 was designated as the type species of *Stenomax* Allard, 1876 by Cherney (2005, p. 387).

3. Westwood (1838, p. 32) designated *Helops caraboides* Panzer, 1794 (a common European species) as the type species of *Helops*. This designation was later accepted by Blanchard (1844, plate 51, fig. 9), Duponchel (1845, p. 524) and other authors. This species was not originally included in the genus *Helops* by Fabricius (1775), and therefore cannot be used as the type species (Article 67.2 of the Code). *Helops caraboides* Panzer, 1794 is a junior subjective synonym of *Tenebrio laevioctostriatus* Goeze, 1777 (currently *Nalassus* (*Nalassus*) *laevioctostriatus* (Goeze, 1777); tribe HELOPINI, subtribe CYLINDRINOTINA).

4. Hope (1840, p. 133) subsequently designated *Tenebrio caeruleus* Linnaeus, 1758 as the type species of *Helops* Fabricius, 1775. Gebien (1943, p. 416) also used *Tenebrio caeruleus* as the type species of *Helops* in the most recent catalogue of the world TENEBRIONIDAE.

5. Acceptance of the first valid type species fixation by Latreille (1810) would seriously affect the nomenclatural stability of long-recognized generic and subtribal concepts in the tribe HELOPINI. *Helops* Fabricius, 1775 would take priority over *Stenomax* Allard, 1876 as a senior objective synonym and species currently in *Helops* would be referred to the junior synonym *Anteros* Laporte, 1840 (p. 235). The type species of *Anteros* Laporte, 1840 is *Helops chalybaeus* Latreille, 1804, a junior subjective synonym of *Helops caeruleus* (Linnaeus, 1758). *Anteros* Laporte, 1840 is a junior homonym of *Anteros* Hübner, 1819 (p. 77) (Lepidoptera) and a senior homonym of *Anteros* Blanchard, 1845 (Coleoptera, CERAMBYCIDAE). Therefore a new name would be necessary for the species presently in the genus *Helops*, typified by *Tenebrio caeruleus* Linnaeus, 1758. Additionally, the subtribe HELOPINA would replace CYLINDRINOTINA and the junior synonym ENOPLOPINA Solier, 1848 would replace HELOPINA. It is for this reason that the proposal by Iablokoff-Khnzorian (1964) to use *H. lanipes* as the type species of *Helops* has been disregarded by subsequent workers while the concepts of Hope (1840) and Gebien (1943) remain in current usage (Español, 1974; Español & Comas, 1989; Nabozhenko, 2001, 2006; Aalbu et al., 2002a, b). A ruling by the Commission is necessary to maintain the current concept of the diverse, well-known and widespread tenebrionid genus *Helops* Fabricius, 1775.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all type fixations of for the nominal genus *Helops* Fabricius, 1775 before that of *Tenebrio caeruleus* Linnaeus, 1758 by Hope (1840);
- (2) to place on the Official List of Generic Names in Zoology the name *Helops* Fabricius, 1775 (gender: masculine), type species *Tenebrio caeruleus* Linnaeus, 1758 by the fixation of Hope (1840) as ruled in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *caeruleus* Linnaeus, 1758 as published in the binomen *Tenebrio caeruleus* (specific name of the type species of *Helops* Fabricius, 1775).

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Case 3415

***Pedionomus* Gould, December 1840 (Aves, PEDIONOMIDAE) and *Leipoa* Gould, December 1840 (Aves, MEGAPODIIDAE): proposed conservation of usage**

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Abstract. The purpose of this application, under 23.9.3 of the Code, is to conserve the generic names *Pedionomus* Gould, [1 December] 1840 for the Australian plains-wanderer (PEDIONOMIDAE) and *Leipoa* Gould, [1 December] 1840 and the specific name *Leipoa ocellata* Gould, [1 December 1840] for the Australian malleefowl (MEGAPODIIDAE). The names *Pedionomus* Gould, [1 December] 1840, *Leipoa* Gould, [1 December] 1840 and *Leipoa ocellata* Gould, [1 December] 1840 have been in prevailing usage as the valid names for these taxa for over 150 years. However, Gould on 31 October, 1840 used the name *Pedionomus ocellatus* for the malleefowl, and this name has been used as valid for the malleefowl on at least one occasion in the 20th century. Suppression of *Pedionomus ocellatus* Gould, [31 October] 1840 will maintain stability in nomenclature.

Keywords. Nomenclature; taxonomy; Aves, MEGAPODIIDAE; PEDIONOMIDAE; *Leipoa*; *Pedionomus*; *Leipoa ocellata*; *Pedionomus torquatus*; malleefowl; plains-wanderer; Australia.

1. *Pedionomus* Gould, [1 December] 1840 (text to pl. 17 in Gould, 1840b) and *Leipoa ocellata* Gould, [1 December] 1840 (text to pl. 6 in Gould, 1840b), sometimes in the incorrect subsequent spelling *Lipoa ocellata*, have been used almost universally as the respective generic and binominal names for the endemic Australian plains-wanderer and malleefowl since the time of their description, in hundreds of scientific papers and ornithological manuals. Included in the many basic references employing the names are such global checklists and nomenclators as Peters (1934), Wolters (1875–1982), Sibley & Monroe (1990), Dickinson (2003) and Gill & Wright (2006), as well as atlases of Australian birds (Blakers et al., 1984; Barrett et al., 2003), global and Australian handbooks (Schodde & Tiedemann, 1986; Marchant & Higgins, 1993; Elliott, 1994; Baker-Gabb, 1996), checklists of Australasian birds (R.A.O.U. Checklist Committee, 1926; Condon, 1975; Christidis & Boles, 1994; Stanger et al., 1998; Clayton et al., 2006), national conservation action plans and reviews (Ovington, 1978; Garnett & Crowley, 2000) and field guides (e.g. Pizzey & Knight, 1997; Simpson et al., 1999; Morecombe, 2003). The plains-wanderer is the only

representative species of PEDIONOMIDAE, a family based on the nominal type genus *Pedionomus* Gould [1 December] 1840 and of high profile in evolutionary ornithology because of its uncertain relationships (Sibley & Ahlquist, 1990, pp. 442, 461). The malleefowl, also the only member of its genus, is one of Australia's iconic mound-building megapodes and the subject of a classic monograph by H.J. Frith (1962). Both species are threatened, and under government-funded management plans. Thus stability of their nomenclature is vital for communication in day-to-day avian biology and ecology.

2. Until 1990, the names *Pedionomus torquatus* and *Leipoa ocellata* were thought to have been first published in the texts to the 17th and 6th plates, respectively in part 1 of John Gould's folio *The Birds of Australia*, which appeared on 1 December 1840 (Gould 1840b), and on pages 114 and 126 of the *Proceedings of the Zoological Society of London* for 1840, respectively in May 1841 (Gould, 1841a) and July 1841 (Gould, 1841b) according to Sclater (1893). All were drawn from readings before the Zoological Society of London in 1840, on 8 September (*Pedionomus torquatus*) and 13 October (*Leipoa ocellata*). There was, nevertheless, an earlier publication of the names, where the name *Pedionomus ocellatus* was used for malleefowl (see Bruce & McAllan, 1990). An advance newspaper report of the 13 October meeting of the Zoological Society, *The Athenaeum* for 31 October 1840 (p. 876), had paraphrased Gould's introductory comments on the malleefowl and had included a description of its characters but had named it *Pedionomus ocellatus*. Gould, who was mentioned as providing the information (Gould, 1840a), is author under Article 50.2 of the Code. The names *Pedionomus* and *Pedionomus ocellatus* published in *The Athenaeum* are thus available under Article 12.2.6 of the Code (a combined description or definition of a new nominal genus and a single new nominal species). As such, the name *Pedionomus* Gould, [31 October] 1840, used for the malleefowl, is a senior objective synonym of *Leipoa* Gould, [1 December] 1840 and is also a senior homonym of the name *Pedionomus* Gould, [1 December] 1840 used for the plains-wanderer.

3. Attempts to suppress *Pedionomus ocellatus* Gould for the malleefowl have so far been unsuccessful. Schodde & Bock (1997) sought to do so in an application to the International Commission on Zoological Nomenclature to suppress all newspaper uses of Gould names found by Bruce & McAllan (1990) prior to their publication in the more accessible *Proceedings of the Zoological Society of London* (Gould, 1841a, b) and Gould's own folio, *The Birds of Australia* (Gould, 1840b). In a close decision, the Commission (Opinion 2026, BZN, 2003, 60: 79–80) instead recommended a case-by-case consideration of problematic names, an approach we follow here. McAllan (2007) has since argued that *Pedionomus ocellatus* used for the malleefowl can be disposed of under Article 23.9, on the grounds that it has not been used since 1899. This action, too, is faulty as McAllan did not provide evidence to meet the conditions specified for protecting names in use under Articles 29.3.2 and 29.3.1.2 of the Code. More than that, he was also party to treating *Pedionomus ocellatus* Gould, [31 October] 1840 as a valid name for the malleefowl in Bruce & McAllan (1990), breaching Article 23.9.1.1 as well. Although declining to press adoption of the name, Bruce & McAllan (1990) nevertheless concluded (p. 457) 'Therefore the Mallee Fowl should become *Pedionomus ocellatus*', and went on to list '*Pedionomus* of Gould, 1840' (= publication in the *Athenaeum*) under the heading 'Valid Names' in Appendix 1 to their paper.

4. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to suppress the following names for the Purposes of both the Principle of Priority and the Principle of Homonymy:
 - (a) *Pedionomus* Gould, [31 October] 1840;
 - (b) *ocellatus* Gould, [31 October] 1840, as published in the binomen *Pedionomus ocellatus*;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Pedionomus* Gould, [1 December] 1840 (gender: masculine), type species by monotypy *Pedionomus torquatus* Gould, [1 December] 1840;
 - (b) *Leipoa* Gould, [1 December] 1840 (gender: feminine), type species by monotypy *Leipoa ocellata* Gould, [1 December] 1840;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *ocellata* Gould, [1 December] 1840, as published in the binomen *Leipoa ocellata* (type species of *Leipoa* Gould, [1 December] 1840);
 - (b) *torquatus* Gould, [1 December] 1840, as published in the binomen *Pedionomus torquatus* (type species of *Pedionomus* Gould, [1 December] 1840);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Pedionomus* Gould, [31 October] 1840, as suppressed in (1)(a) above;
- (5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *ocellatus* Gould, [31 October] 1840, as published in the binomen *Pedionomus ocellatus* and as suppressed in (1)(b) above.

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This application has been evaluated and approved by all responding members (10 of 12) of the Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Committee.

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Case 3418

Specific names of nine Australian birds (Aves): proposed conservation

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Abstract. The purpose of this application, under Articles 24.2 and 81.2.3 of the Code, is to conserve the usage of nine specific names of Australian birds. The names, chosen as senior by First Revisers, were later replaced almost a hundred years ago by simultaneously published names on grounds of page precedence. The names chosen by page precedence, all of common and often popular Australian birds, have been in prevailing use ever since and are in universal use today. This application seeks to validate these names for reasons of nomenclatural stability.

Keywords. Nomenclature; taxonomy; *Anthochaera chrysoptera*; *Geopelia placida*; *Geopelia tranquilla*; *Gerygone olivacea*; *Grallina cyanoleuca*; *Leucosarcia melanoleuca*; *Lichenostomus melanops*; *Manorina melanocephala*; *Oriolus sagittatus*; *Psophodes olivaceus*; little wattlebird; peaceful dove; white-throated gerygone; magpielark; wonga pigeon; yellow-tufted honeyeater; noisy miner; olive-backed oriole; eastern whipbird; Australia.

1. The rule that First Revisers should determine priority for names published simultaneously for the same taxon was established at the beginning of international rules for the regulation of zoological nomenclature, in Article 28 of the *Règles internationales de la Nomenclature zoologique* (1905). It was repeated again in 1926 in an emended reprint in the *Proceedings of the Biological Society of Washington* (International Congress of Zoology, 1926). The rule is addressed in Article 28, the last sentence of its first paragraph stating: ‘If the names are of the same date, that selected by the first reviser shall stand’. Significantly, there is also a prominent Recommendation (c) at the very end of this article. It says: ‘Other things being equal, that name is to be preferred which stands first in the publication (page precedence)’. This laid seeds for misinterpretation and incorrect action because ambiguities were perceived in the wording and context of both article and its recommendation, as they did not elaborate conditions for choice by first revisers. The statement of the First Reviser Principle, formulated in the first edition of the Code (1961, Article 24), reaffirmed in the current edition of the Code (1999, Article 24), has the meaning and application of that principle properly clarified and resolved. The recommendation on page precedence, moreover, has been dropped from the current Code.

2. The earlier ambiguities led the practitioners of nomenclature in Australian ornithology during the first half of the 20th century to view choice by first reviser as applying essentially to names for the same taxon that were published on the same date but in different works. G.M. Mathews and the Checklist Committee of the Royal Australasian Ornithologists Union were both the most notable and avowed followers of the *Règles* (1905). For names published in the same work, page precedence was followed, after Recommendation (c) to Article 28 in the *Règles* (1905). As a result, a number of names for the same species of Australian birds published in the same works, mainly by John Latham and John Gould, were changed from those used in the 19th century under the First Reviser Principle to those with page, and even line, precedence. The shifts began with Mathews (1908, 1911, 1912) and were established firmly in the second edition of the Official Checklist of the Birds of Australia (R.A.O.U. Checklist Committee, 1926).

3. The pertinent Latham and Gould names currently in use are *Columba melanoleuca* Latham, 1801 (p. 59) (currently *Leucosarcia melanoleuca*) for the wonga pigeon, *Geopelia placida* Gould, 1844 (p. 55) for the peaceful dove, *Psilopus olivaceus* Gould, 1838 (pl. 61) (currently *Gerygone olivacea*) for the white-throated gerygone; *Coryus cyanoleucus* Latham, 1801 (p. 25) (currently *Grallina cyanoleuca*) for the magpielark, *Coracias sagittata* Latham, 1801 (p. 26) (currently *Oriolus sagittatus*) for the olive-backed oriole, *Corvus olivaceus* Latham, 1801 (p. 26) (currently *Psophodes olivaceus*) for the eastern whipbird, *Gracula melanocephala* Latham, 1801 (p. 28) (currently *Manorina melanocephala*) for the noisy miner, *Turdus melanops* Latham, 1801 (p. 40) (currently *Lichenostomus melanops*) for the yellow-tufted honeyeater, and *Merops chrysopterus* Latham, 1801 (p. 33) (currently *Anthochaera chrysoptera*) for the little wattlebird. The changes are itemised in Table 1. Although technically invalid, these names chosen by line precedence have remained in use to this day in hundreds of references in systematic, ecological and general biological journals, as well as in all current checklists and manuals. Such references include the *Check-list of birds of the world* begun by J.L. Peters (Peters, 1937; Mayr & Greenway, 1962; Mayr & Paynter, 1964; Paynter, 1967; Mayr & Cottrell, 1986) and other global checklists (e.g. Sibley & Monroe, 1990; Dickinson, 2003; Gill & Wright, 2006), the Australian checklists and taxonomic manuals of Schodde (1975), Christidis & Boles (1994), Schodde & Mason (1997, 1999) and Clayton et al. (2006), the *Handbook of Australian, New Zealand and Antarctic birds* (Higgins & Davies, 1996; Higgins et al., 2001; Higgins & Peter, 2002; Peter, 2006), as well as the Australian bird atlases (Blakers et al., 1984; Barrett et al., 2003), and single-volume handbooks and field guides (e.g. Schodde & Tiedemann, 1986; Pizzey & Knight, 1997; Simpson et al., 1999; Morecombe, 2003). Clearly, the names are in prevailing use, whereas none of their currently valid senior synonyms chosen by first reviser have been employed in any recent reference.

4. The species concerned are all common or familiar Australian birds. To reject their current names for senior names chosen under the First Reviser Principle would throw their nomenclature into disarray and disrupt the nomenclatural currency of the huge Australian and global literature dealing with them. Although all have remained unused for 70–80 years, except for *Geopelia tranquilla* Gould, 1844 (p. 56), the senior names were employed in the first decades of the 20th century. Here usage in the premier Australian ornithological journal, *The Emu*, which began publication in

Table 1. Pairs of simultaneously published names for the same species of Australian birds, one of which is not currently in use but senior by choice of the First Reviser, and the other in use through past (mis)application of the statement of page precedence. Current binomina in use for the taxa, and their English names, are taken from Dickinson (2003) and Gill & Wright (2006) respectively. Although usually cited as 1802 today, the date of publication of Latham's *Supplementum Indicis Ornithologici* is quoted as 1801 as on its title page, because circumstantial evidence for 1802 appears to be inadequate under Article 21.2 of the Code (Schodde et al., 2007).

Currently used binomen and English name	Family	Junior names (currently in use) by page precedence	Senior names (currently not in use) by choice of First Reviser
<i>Anthochaera chrysoptera</i> (Latham, 1801) – little wattlebird	MELIPHAGIDAE – honeyeaters	<i>Merops chrysopterus</i> Latham, 1801 (p. 33) – from Mathews (1908)	<i>Certhia mellivora</i> Latham, 1801 (p. 37) – by G.R. Gray (1843)
<i>Geopelia placida</i> Gould, 1844 – peaceful dove	COLUMBIDAE – pigeons and doves	<i>Geopelia placida</i> Gould, 1844 (p. 55) – from Mathews (1908)	<i>Geopelia tranquilla</i> Gould, 1844 (p. 56) – by Gould (1845)
<i>Gerygone olivacea</i> (Gould, 1838) – white-throated gerygone	ACANTHIZIDAE – Australian warblers	<i>Psilopus olivaceus</i> Gould, 1838 (pl. 61) – from Mathews (1913)	<i>Psilopus albogularis</i> Gould, 1838, pl. 61) – by Gould (1848)
<i>Grallina cyanoleuca</i> (Latham, 1801) – magpielark	MONARCHIDAE – monarch flycatchers	<i>Corvus cyanoleucus</i> Latham, 1801 (p. 25) – from Mathews (1912)	<i>Gracula picata</i> Latham, 1801 (p. 29) – by Strickland (1843)
<i>Leucosarcia melanoleuca</i> (Latham, 1801) – wonga pigeon	COLUMBIDAE – pigeons and doves	<i>Columba melanoleuca</i> Latham, 1801 (p. 59) – from Mathews (1911, 1912)	<i>Columba picata</i> Latham, 1801 (p. 59) – by Strickland (1843)
<i>Lichenostomus melanops</i> (Latham, 1801) – yellow-tufted honeyeater	MELIPHAGIDAE – honeyeaters	<i>Turdus melanops</i> Latham, 1801 (p. 40) – from Mathews (1908)	<i>Muscicapa auricomis</i> Latham, 1801 (p. 49) – by Strickland (1843)
<i>Manorina melanocephala</i> (Latham, 1801) – noisy miner	MELIPHAGIDAE – honeyeaters	<i>Gracula melanocephala</i> Latham, 1801 (p. 28) – from Mathews (1912)	<i>Merops garrulus</i> Latham, 1801 (p. 34) – by Gould (1865)
<i>Oriolus sagittatus</i> (Latham, 1801) – olive-backed oriole	ORIOLIDAE – Old World orioles	<i>Coracias sagittata</i> Latham, 1801 (p. 26) – from Mathews (1908, as <i>sagittarius</i> , sic)	<i>Gracula viridis</i> Latham, 1801 (p. 28) – by G.R. Gray (1843)
<i>Psophodes olivaceus</i> (Latham, 1801) – eastern whipbird	EUPETIDAE – whipbirds and railbabblers	<i>Corvus olivaceus</i> Latham, 1801(p. 26) – from Mathews (1912)	<i>Muscicapa crepitans</i> Latham, 1801 (p. 51) – by G.R. Gray (1843)

1901, is instructive (references in McGill, 1953). The name *picata* Latham for the wonga pigeon was used 22 times to 1920, *albogularis* Gould for the white-throated gerygone 41 times to 1924, *picata* Latham for the magpielark 159 times to 1921, *viridis* Latham for the olive-backed oriole 20 times to 1922, *crepitans* Latham for the eastern whipbird 52 times to 1920, *garrulus* Latham for the noisy miner 95 times to 1926, *auricomis* Latham for the yellow-tufted honeyeater 16 times to 1910, and *mellivora* Latham for the little wattlebird 31 times to 1920. Consequently, none can now be replaced under Article 23.9.2 of the Code (Reversal of Precedence). Such usage may seem considerable for several species, but the names have not since been employed as valid in *The Emu*, or elsewhere. Replacing *picata* Latham for the

magpielark in 1921, for example, was *cyanoleuca* Latham, which was used 211 times in *The Emu* alone between 1922 and 1950 (McGill, 1953) and it is now in exclusive use everywhere.

5. The circumstances involving *Geopelia tranquilla* Gould, 1844 concern its occasional ongoing use for a southern subspecies of the simultaneously published *Geopelia placida* Gould, 1844 (p. 55) (Peters, 1937; Goodwin, 1967; Frith, 1982; Gibbs et al., 2001; cf. Table 1). Wherever *Geopelia tranquilla* and *Geopelia placida* have been combined taxonomically, either at specific or subspecific rank, *Geopelia placida* has nevertheless been treated as the senior name ever since the first decades of the 20th century (e.g. Mathews, 1912, 1913, 1927; R.A.O.U. Checklist Committee, 1926; Peters, 1937; Wolters, 1975–1982; White & Bruce, 1986; Sibley & Monroe, 1990; Johnstone, 1992; Baptista et al., 1997; Schodde, 1997; Dickinson, 2003; Clayton et al., 2006). These circumstances are taken into account in the proposal of conditional suppression of *Geopelia tranquilla* Gould, 1844 to provide that the senior name (*Geopelia tranquilla*) may be used only when the taxa denoted by the names are regarded as distinct.

6. Because of the disruption to the nomenclature of Australian birds that would result from reintroduction of the disused synonyms, chosen by First Revisers and listed in Table 1, it is proposed that these names be suppressed.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the following specific names for the Purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *albogularis* Gould, 1838, as published in the binomen *Psilopus albogularis*;
 - (b) *auricomis* Latham, 1801, as published in the binomen *Muscicapa auricomis*;
 - (c) *crepitans* Latham, 1801, as published in the binomen *Muscicapa crepitans*;
 - (d) *garrulus* Latham, 1801, as published in the binomen *Merops garrulus*;
 - (e) *mellivora* Latham, 1801, as published in the binomen *Certhia mellivora*;
 - (f) *picata* Latham, 1801, as published in the binomen *Columba picata*;
 - (g) *picata* Latham, 1801, as published in the binomen *Gracula picata*;
 - (h) *viridis* Latham, 1801, as published in the binomen *Gracula viridis*;
- (2) to give the name *placida* Gould, 1844, as published in the binomen *Geopelia placida* Gould, precedence over the name *tranquilla* Gould, 1844, as published in the binomen *Geopelia tranquilla*, whenever the two are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *chrysopterus* Latham, 1801, as published in the binomen *Merops chrysopterus*;
 - (b) *cyanoleucus* Latham, 1801, as published in the binomen *Corvus cyanoleucus*;
 - (c) *melanocephala* Latham, 1801, as published in the binomen *Gracula melanocephala*;
 - (d) *melanoleuca* Latham, 1801, as published in the binomen *Columba melanoleuca*;
 - (e) *melanops* Latham, 1801, as published in the binomen *Turdus melanops*;
 - (f) *olivaceus* Latham, 1801, as published in the binomen *Corvus olivaceus*;

- (g) *olivaceus* Gould, 1838, as published in the binomen *Psilopus olivaceus*;
- (h) *placida* Gould, 1844, as published in the binomen *Geopelia placida*, with the endorsement that it is to be given precedence over the name *tranquilla* Gould, 1844, as published in the binomen *Geopelia tranquillia* whenever the two are considered to be synonyms;
- (i) *sagittata* Latham, 1801, as published in the binomen *Coracias sagittata*;
- (j) *tranquilla* Gould, 1844, as published in the binomen *Geopelia tranquillia*, with the endorsement that it is not to be given priority over the name *placida* Gould, 1844, as published in the binomen *Geopelia placida*, whenever the two are considered to be synonyms;
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *albogularis* Gould, 1838, as published in the binomen *Psilopus albogularis* and as suppressed in 1(a) above;
 - (b) *auricomis* Latham, 1801, as published in the binomen *Muscicapa auricomis* and as suppressed in 1(b) above;
 - (c) *crepitans* Latham, 1801, as published in the binomen *Muscicapa crepitans* and as suppressed in 1(c) above;
 - (d) *garrulus* Latham, 1801, as published in the binomen *Merops garrulus* and as suppressed in 1(d) above;
 - (e) *mellivora* Latham, 1801, as published in the binomen *Certhia mellivora* and as suppressed in 1(e) above;
 - (f) *picata* Latham, 1801, as published in the binomen *Columba picata* and as suppressed in 1(f) above;
 - (g) *picata* Latham, 1801, as published in the binomen *Gracula picata* and as suppressed in 1(g) above;
 - (h) *viridis* Latham, 1801, as published in the binomen *Gracula viridis* and as suppressed in 1(h) above;

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This application has been evaluated and approved by a majority of nine (plus one uncommitted) of responding members (10 of 12) of the SCON.

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Case 3440***Atrichornis* Stejneger, 1885 (Aves, ATRICHORNITHIDAE): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is the conservation of the generic name *Atrichornis* Stejneger, 1885 for the Australian scrub-birds (ATRICHORNITHIDAE), which has been in universal use as a valid generic name for almost 90 years. It is threatened, through the incorrect subsequent spelling *Atrichia*, by the name *Atricha* Gould, 1844, which was used for the scrub-birds into the first decade or so of the 20th century, and thus cannot be replaced under Article 23.9.2 of the Code. It is proposed that the name *Atricha* Gould be suppressed to confer stability in nomenclature.

Keywords. Nomenclature; taxonomy; ATRICHORNITHIDAE; *Atrichornis*; *Atricha*; *Atrichia*; *Atrichornis rufescens*; scrub-birds; Australia.

1. Australian scrub-birds are of global evolutionary significance as primitive songbirds (Ames, 1971; Bock & Clench, 1985; Sibley & Ahlquist, 1985, 1990) and have a high conservation profile in Australia. Their two extant species, the noisy scrub-bird (*Atrichornis clamosus* (Gould, 1844)) and rufous scrub-bird (*A. rufescens* (Ramsay, 1866)) are under diverse categories of threat and subject to governmental conservation action (Ovington, 1978; Garnett & Crowley, 2000). Since the early 20th century they have been known universally by the generic name *Atrichornis* Stejneger, 1885, type genus of the family ATRICHORNITHIDAE. The type species of *Atrichornis* Stejneger, 1885 is *Atrichia rufescens* Ramsay, 1866 (p. 2, col. 4) by monotypy. To date, *Atrichornis* has been, and continues to be, in use in hundreds of scientific papers and reports, as well as in all references quoted above, and in global checklists and nomenclators such as Wolters (1875–1982), Mayr (1979), Sibley & Monroe (1990), Dickinson (2003) and Gill & Wright (2006), atlases of Australian birds (Blakers et al., 1984; Barrett et al., 2003), global and Australian handbooks (Schodde & Tiedemann, 1986; Higgins et al., 2001; Danks, 2004), checklists and taxonomic manuals of Australasian birds (R.A.O.U. Checklist Committee, 1926; Schodde, 1975; Christidis & Boles, 1994; Schodde & Mason, 1999; Stanger et al., 1998; Clayton et al., 2006), and field guides (e.g., Pizzey & Knight, 1997; Simpson et al., 1999; Morecombe, 2003). Its stability and currency are therefore vitally important for communication in day-to-day avian biology and ecology.

2. During the 19th century, *Atrichia* Gould, [March] 1844 (Gould, 1844b, text to Plate 11) had been used as the generic name for the scrub-birds, a name superseded by *Atrichornis* Stejneger, 1885 when Gould's name was found to be a junior homonym of *Atrichia* Schrank, 1803 (Insecta) and invalid (Sharpe, 1901, p. 187). In their search for early publications of Gould names in newspapers, Bruce & McAllan (1990) have since unearthed an earlier spelling of *Atrichia* Gould: *Atricha*. It appeared in an advance report in the periodical *The Athenaeum*, of a meeting of the Zoological Society of London (Gould, 1844a, p. 90). Published there on 27 January 1844 with a brief diagnosis, and with Gould as author of the binomen *Atricha clamosa*, it is available under Articles 12.2.6 and 56.2 of the Code, and thus is senior to *Atrichia* Gould, [March] 1844 and now threatens *Atrichornis* Stejneger, 1885.

3. Two options suggest themselves for replacing the name *Atricha* Gould, [January] 1844. The first option assumes that *Atricha* Gould, [January] 1844 in *The Athenaeum* (Gould, 1844a) and *Atrichia* Gould, [March] 1844 in *The Birds of Australia*, part 14 (Gould, 1844b) are independent names that enter separately into synonymy and homonymy. In this event, *Atricha* may be replaced readily under Articles 23.9.1.1 and 23.9.1.2 of the Code, without recourse to the Commission, because it has not been used since 1899. The second option interprets *Atricha* and *Atrichia* as coming from one source and therefore as different spellings of the one name. In this case the consequence is that *Atricha*, in the incorrect subsequent spelling *Atrichia*, has been used for the Australian scrub-birds into the first decades of the 20th century, for example in Campbell (1901) and in five of six references in the journal *Emu* to 1910, and in four of 18 to 1920. In these circumstances, Article 23.9.1.1 of the Code cannot be applied, and a ruling by the Commission becomes necessary.

4. We have examined the links between Gould's available Australian bird names published in newspapers (listed in Bruce & McAllan, 1990), the *Proceedings of the Zoological Society of London* and Gould's folio, *The birds of Australia*. It was Gould's practice, when preparing them for publication in his folio, to read the descriptions of his new species at meetings of the Zoological Society of London in advance. As a result, they were described not only in both the folio and *Proceedings of the Zoological Society of London*, with priority going to the part of the folio or *Proceedings* that appeared first, but were also reported in newspaper notices of the meetings, often ahead of time (e.g. *Atricha*). In each of those sources, the same name (or a variant spelling) for the same species with the same author is referred by citation back to the original reading of the name at the Zoological Society, thereby connecting the sources to a single origin. This leads us to conclude that the names-in-common (and their variant spellings) for the one species in each of the sources should be treated as one and the same name, and that therefore, application to the Commission to suppress *Atricha* Gould is necessary. It is a conclusion that has already been reached implicitly in all previous checklists and nomenclators of Australian birds; otherwise their synonymies would be full of Gould names doubled-up separately from his folio and the *Proceedings of the Zoological Society of London*. Moreover, it is a conclusion both explicit and implicit for *Atrichia* Gould itself in such basic works as Sharpe's *Catalogue of the birds in the British Museum* (1890, p. 659), Mathews's *The birds of Australia* (1920–1921, p. 30), and Neave's *Nomenclator Zoologicus* (1939, p. 351).

5. The International Commission on Zoological Nomenclature is accordingly asked:
 - (1) to suppress the generic name *Atricha* Gould, [January] 1844 for the Purposes of the Principle of Priority but not for the Purposes of the Principle of Homonymy;
 - (2) to place on the Official List of Generic Names in Zoology the name *Atrichornis* Stejneger, 1885 (gender: masculine), type species by monotypy *Atrichia rufescens* Ramsay, 1866;
 - (3) to place on the Official List of Specific Names in Zoology the name *rufescens* Ramsay, 1866, as published in the binomen *Atrichia rufescens* (specific name of the type species of *Atrichornis* Stejneger, 1885);
 - (4) place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Atricha* Gould, [January] 1844, as suppressed in (1) above.

Acknowledgements

Members of the Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Committee who made particular contributions to the formulation of this application included Richard Banks (*U.S.A.*), Edward Dickinson (*England*), Bob Dowsett (representing *Africa*), Mary LeCroy (*U.S.A.*), Hiroyuki Morioka (*Japan*), Christiane Quaiser (*Germany*) and Frank Steinheimer (*Germany*).

This application has been evaluated and approved by all responding members (10 of 12) of the SCON. It was originally submitted to the Commission on 19 April 2007 in a combined application with Case 3415.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Comments on the proposed conservation of ARANEIDAE Clerck, 1758, *Araneus* Clerck, 1758 and *Tegenaria* Latreille, 1804 (Arachnida, Araneae)
(Case 3371: see BZN 64: 15–18)

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I fully agree with the statements and proposals made in this application. I support the proposal, as the generic names *Araneus* and *Tegenaria* are very widely used and any other ruling would cause terrible and unnecessary confusion. Moreover, the solution proposed fully conforms to the presumed intentions of the original authors.

(2) O. Kraus

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I strongly support N.J. Kluge's application. This is in conformity with current usage. His proposals will prevent further useless digging in old works.

(3) Herbert W. Levi

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Forty years ago I was unsuccessful finding a designated type species for the genus *Aranea* and designated *A. diadema* L. as type (Levi, 1971, p. 133). It was overlooked by Kluge (Kluge, personal communication). I think this type designation solves the hypothetical problem presented by Kluge (Case 3371). There is no objection to having similar generic names *Aranea* and *Araneus*, *Aranea* now a synonym of *Araneus*. The type species of both genera are much alike. Problems of hypothetical family names based on similar generic names have been solved in the past.

Latreille's type designation (and I have not checked on this), forgotten for 200 years, could be annulled, but both the Preamble of the Code and General Recommendations of the Code stress stability of Nomenclature, not searching for obsolete names, making the use of this old type designation unlikely. I do not think that there is a nomenclatural problem.

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Levi, H.W. 1971. The *diadematus* group of the orb-weaver genus *Araneus* North of Mexico (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology*, **141**(4): 131–179.

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The type designation made by Levi (1971) is invalid, because it ignores the earlier type designation made by Latreille (1810). Levi (1971) suggested that *Aranea diadema* be designated as the type species of *Aranea* Linnaeus, 1758 and *Araneus angulatus* is confirmed as the type species of *Araneus* Clerk, 1758. If this approach was followed, *Aranea* would become an older objective synonym of *Epeira* Walckenaer, 1805 and a junior subjective synonym of *Araneus* Clerk, 1758. The purpose of this action is unclear, as both species are considered to belong to the same genus. If in the future the recently accepted large genus *Araneus* is subdivided into smaller genera in such a manner that the species presently identified as *Araneus angulatus* and *Araneus diadema* will fall into different genera, these genera will get the hardly distinguishable names *Araneus* and *Aranea* respectively, instead of the distinct names *Araneus* and *Epeira*. If these taxa are elevated to the family-group rank, their names will become identical, and a new ruling by Commission will be necessary. The suggestion made by Levi (1971) does not clarify the situation with the recently used family name ARANEIDAE Latreille, 1806. When the family-group name ARANEIDAE was established, its type genus *Aranea* was interpreted as being based on *Aranea domestica* (which was subsequently designated as the type species by Latreille (1810)). This interpretation of *Aranea* is different from that based on the type species proposed by Levi (1971).

Comment on the proposed conservation of *Termes serratus* Froggatt, 1898 (currently *Microcerotermes serratus*) and *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*) (Insecta, Isoptera, TERMITINAE)
(Case 3385; see BZN 64: 83–86, 185–187)

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The specific name *Microcerotermes serratus* (Froggatt, 1898) has been used since its publication to refer to an Australian termite, while the specific name *M. serrula* (Desneux, 1904) has been used since its publication to refer to a species from Southeast Asia. Because both names are invalid, Roisin & Pasteels (2000, p. 165) recommended the strict application of the Code to correct these names, which would necessitate the Southeast Asian species being called *M. serratus* (Haviland, 1898), and the Australian species being called *M. parviceps* Mjöberg, 1920. Roisin & Pasteels (BZN 64: 186) are correct in their assumption that I overlooked this recommendation (Roisin & Pasteels, 2000, p. 165), with the result that I continued to follow the prevailing trend and used the junior names. In 2006, on reading their correction, I applied for the conservation of both junior names (Case 3385; BZN 64: 83–86), an application that Roisin & Pasteels wish the Commission to reject (BZN 64: 185–187). My application cannot be described as ‘nomenclatural anarchy’ (Roisin & Pasteels, BZN 64: 187), as an application to the Commission asking for their ruling on this matter is the official method for resolving such disagreements over nomenclature.

I have found six additional publications (Gay, 1952, p. 127; Gay, 1956, p. 211; Ferrar & Watson, 1970, p. 101; Grassé, 1982, p. 614; Grassé, 1984, p. 243; Watson & Gay, 1991, p. 346) using the name *M. serratus* (Froggatt, 1898). This brings the number of publications citing this name in the fifty years immediately preceding Roisin & Pasteels's (2000) correction to 13. These 13 publications have more than five different authors, and thus the criteria for conserving this name (Article 79(c) of the 3rd edition of the Code, which was still current when Roisin & Pasteels submitted their correction for publication) would have been met. I have also found five additional publications (Tho, 1982, p. 185; Collins, 1984, p. 70; Chey, 1989, p. 101; Ahmad & Akhtar, 2002, p. 58; Houseman, 2004, p. 237) using the name *M. serrula* (Desneux, 1904), bringing the number of publications citing this name during the same period to seven.

Roisin & Pasteels (BZN 64: 185–187) disagree with my assertions that these two junior names are now 'widely accepted and extensively used' and 'well known' (BZN 64: 84–85). While I acknowledge that the number of publications using these names is relatively low, I would argue that my assertions are justified within the context of termite research for the following reasons:

- (1) These names have been accepted and used by everyone who has published anything on these species, including all the recognised termite experts (Silvestri, Mjöberg, Hill, Gay, Watson, Miller, Grassé, Ahmad, Tho and Thapa) who have published on the Australian or Southeast Asian fauna. The only exceptions are Holmgren (1911), who subsequently adopted the use of the junior name in 1913, and Roisin & Pasteels (2000).
- (2) The junior name *M. serratus* (Froggatt, 1898) has been used in every major publication on the termite fauna of Australia: *Termites (Isoptera) from the Australian region* (Hill, 1942), *Termites of the Australian region* (Gay & Calaby, 1970), *The insects of Australia* (Watson & Gay, 1991), *Atlas of Australia termites* (Watson & Abbey, 1993) and the *Zoological catalogue of Australia* (Watson et al., 1998). In regard to the Southeast Asian fauna, there are only two major publications available, *Termites of Peninsular Malaysia* (Tho, 1992) and *Termites of Sabah* (Thapa, 1981), and both of these use the junior name *M. serrula* (Desneux, 1904).
- (3) Those of us who work on the termites of Southeast Asia or Australia are familiar with these widespread species because they are well documented in the literature as part of their respective regional fauna, and in the case of *M. serrula* (Desneux, 1904) because it is often abundant on the forest floor and easily recognized due to the relatively short, stout mandibles of the soldiers.

Roisin & Pasteels's desire to reject the application and to revert to the valid names ignores a huge potential cause of confusion. Everyone who studies either the Southeast Asian or the Australian fauna relies on the major publications listed above, all of which use the junior names. Also, any new researchers starting in either region will immediately turn to those same obvious sources for an authoritative view of the fauna. They might not consult a paper from an adjoining region entitled '*The genus Microcerotermes (Isoptera: Termitidae) in New Guinea and the Solomon Islands*', and thus Roisin & Pasteels's (2000) correction would go unnoticed. Reverting to the correct names would render all those major publications inaccurate. However, those publications will continue to be consulted, with the likely result that the junior names will continue to be used and published.

To reject the application and revert to the correct names may satisfy the letter of the Code but it would: (1) require overturning the prevailing usage of the junior names, (2) leave all the major publications from both regions with a nomenclatural inaccuracy, which is likely to be perpetuated in the future literature, and (3) cause confusion over species distributions because of the switching of the binomen *Microcerotermes serratus* from an Australian species to a Southeast Asian species. A ruling to conserve the junior names would cause no such problems but instead would legitimise the use of the currently accepted names, protect the accuracy of the major regional publications, and ensure nomenclatural stability.

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Comment on the proposed conservation of the specific names *Hemerobius elegans* Stephens, 1836 (currently *Symphorobius elegans*) and *Hemerobius elegans* Guérin-Méneville, 1844 (currently *Vieira elegans*) (Insecta, Neuroptera)
(Case 3392; see BZN **64**: 174–177)

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I strongly support John Oswald's application to conserve the specific names *Hemerobius elegans* Stephens, 1836 and *Hemerobius elegans* Guérin-Méneville, 1844 for two species of lacewings in separate, well-recognized families. The duplication of names has not led to any confusion for over 150 years, and there is not even a remote likelihood that it would do so in the future. In contrast, suppression of the junior homonym would require additional name changes in a small genus that has already undergone several recent alterations. For stability and simplicity, I urge the

Commission to use its plenary power to conserve the junior homonym and place both names on the Official List of Specific Names in Zoology.

Comments on the proposed conservation of the ichnogenus *Coprinisphaera* Sauer, 1955 (Ichnotaxa, Insecta, Coleoptera, COPRINISPHAERIDAE)

(Case 3360; see BZN 63: 243–246)

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Genise et al. (BZN 63: 243–246) proposed the conservation of the ichnogeneric name *Coprinisphaera* Sauer, 1955 by suppressing the senior synonym *Fontanai* Roselli, 1939. I fully support that *Coprinisphaera* should be used as the valid name for the fossil dung balls. It is not only a widely used name in ichnotaxonomy but has entered the geological literature also by naming the ‘*Coprinisphaera* ichnofacies’ as already documented by Genise et al. (BZN 63: 243–246) and complemented by the following references: Sauer (1965, pp. 271–272), Martinez (1982, p. 48), Genise & Bown (1994, p. 109), Hasiotis et al. (1994, fig. 149), Genise & Cladera (1995, p. 78), Genise & Laza (1998, p. 220), González et al. (1998), Genise (2000a, pp. 50, 53, 55; 2000b, p. 28; 2000c, p. 115), Buatois et al. (2000), Verde (2000, pp. 112–113), Genise et al. (2001), Hasiotis (2002, pp. 79–80, 132), Genise (2003, p. 19), Bellosi et al. (2004, pp. 33, 35), Buatois & Mángano (2004, pp. 312, 327), Dieni & Genise (2004a, p. 29; 2004b, p. 31), Genise & Cladera (2004, pp. 632, 636), Genise et al. (2004b), Genise & Bellosi (2004, p. 41), Hasiotis (2004, pp. 184–185, 188, 190, 200, 236, 238, 239, 250), Hembree & Hasiotis (2004), Bellosi et al. (2005), Radies et al. (2005, pp. 116–118), Sánchez et al. (2005), Chure et al. (2006, p. 243), Hasiotis (2006, p. 401), Hasiotis & Bourke (2006, pp. 217–218), Sánchez et al. (2006; 2007), Bromley et al. (2007, pp. 144, 146), Buatois & Mángano (2007, pp. 286–289, 315); Durringer et al. (2007, pp. 333, 350), Ekdale et al. (2007, p. 570), Genise (2007), Hasiotis (2007, p. 265), Hasiotis et al. (2007, pp. 174, 182, 192), Hunt & Lucas (2007, pp. 59–60, 63), Krause et al. (2007), Krell (2007, p. 3), MacEachern et al. (2007a, pp. 54–58, 61; 2007b, p. 114), Melchor et al. (2007, p. 16), Verde & Genise (2007), Verde et al. (2007, pp. 342–343); with the secondary incorrect spelling *Coprinsphaera*: Halffter & Matthews (1966, p. 154), Retallack (1991, pp. 182, 296), Durringer et al. (2000, p. 264). It would be confusing if the *Coprinisphaera* ichnofacies was defined by an ichnogenus with a different name.

The senior subjective synonym *Fontanai* Roselli is still in use (Buatois & Mángano 2007, 288; MacEachern et al. 2007, 58), but these authors did not consider its synonymy with *Coprinisphaera* proposed by González et al. (1998) and Laza (2006). Both names were mentioned as valid ichnogenera. *Fontanai* has never been used as a valid senior synonym of *Coprinisphaera*.

Dealing with non-organic entities without tokogenetic or phylogenetic relationships and poor in characters, ichnotaxonomy is notoriously difficult and subjective. It is current understanding by many ichnologists that ‘producer-based criteria, as such [...] may not be considered relevant for ichnotaxonomy, because the assignment

generally is too ambiguous' (Bertling et al., 2006). Ichnotaxonomy is at a stage of structural typology. With increasing ichnotaxonomical knowledge and new finds the assignment of traces to trace-makers might become more reliable and eventually an accepted ichnotaxonomical criterion. Currently I consider it rash to suppress a subjective senior synonym in ichnology because it might represent a distinct ichnotaxon in a future refined ichnotaxonomy. Therefore I suggest the modification of the application by Genise et al. (BZN 63: 244) and ask the International Commission on Zoological Nomenclature:

- (1) to use its plenary power to give the name *Coprinisphaera* Sauer, 1955 precedence over the name *Fontanai* Roselli, 1939, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the name *Coprinisphaera* Sauer, 1955 (gender: feminine), with the endorsement that it is to be given precedence over the name *Fontanai* Roselli, 1939 whenever the two are considered to be synonyms, type ichnospecies by monotypy *Coprinisphaera ecuadoriensis* Sauer, 1955;
- (3) to place on the Official List of Specific Names in Zoology the name *ecuadoriensis* Sauer, 1955, as published in the binomen *Coprinisphaera ecuadoriensis* (specific name of the type ichnospecies of *Coprinisphaera* Sauer, 1955).

I do not ask for *Fontanai* Roselli to be placed on the Official List because it should currently not be used as a valid genus-group name. Names that should not be used as valid should not be on the Official List. Putting *Fontanaichnus* Roselli, 1976 (junior objective synonym of *Fontanai* Roselli, 1939) on the Official Index of Rejected and Invalid Generic Names in Zoology as asked for by Genise et al. in (4)(b) (BZN 63: 244) is appropriate but unnecessary because it is a junior objective synonym anyway.

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We support the reversal of precedence of *Coprinisphaera* Sauer 1955 over *Fontanai* Roselli 1939 as proposed by Krell, instead of the conservation of the ichnogeneric name *Coprinisphaera* Sauer, 1955 by suppressing the senior synonym *Fontanai* Roselli, 1939 as proposed by Genise et al. (BZN **63**: 243–246), thus avoiding the suppression of a name that might represent a distinct ichnotaxon in a future refined ichnotaxonomy.

**Comments on the proposed conservation of the usage of the generic name of
Drosophila Fallén, 1823 (Insecta, Diptera)**
(Case 3407; see BZN 64: 238–242)

Corrigendum

Please note that the correct date for Fallén's establishment of the name *Drosophila* is 1823, rather than 1832, as stated in the title and the abstract of the application published in BZN 64: 238–242.

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The case to conserve the usage of the name *Drosophila* Fallén, 1832 over *Sophophora* Sturtevant, 1939, for *Drosophila melanogaster*, is probably the most important ever to have been submitted for a ruling by the Commission in its 113-year history. *Drosophila melanogaster*, commonly referred to (especially by non-taxonomists) as simply '*Drosophila*', is the most widely studied animal, apart, possibly, from *Homo sapiens*, in human history. At the time of writing, 'Google' searches result in the following numbers of 'hits': *Drosophila*: 6,700,000; *Drosophila melanogaster*: 3,640,000; *Sophophora*: 19,000. Thus the number of hits for *Drosophila* exceeds that for *Sophophora* by more than 350 times. This comparison illustrates, very simply, the current global comparative usage of the two names.

It seems likely that were the Commission not to vote in support of the conservation of *Drosophila*, such action would lead not only to unprecedented nomenclatural instability, but also to a widespread lack of confidence in both the actions and the purpose of the Commission itself. While being far from perfect, the present code continues to provide stability, and is adhered to by almost the entire community of zoological taxonomists, while providing opportunities for dealing effectively with exceptional cases. *Drosophila* is just such an exception, and possibly the greatest test of the Commission's role and effectiveness since its formation in 1895.

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The authors showed the invalidity of the early type designation of *Drosophila*: *Musca cellaris* Linnaeus, 1758 (p. 597) by Curtis, 1833 (p. 473) of which the systematic status has never been clarified (and thus invalid); and *Musca funebris* Fabricius, 1787 (p. 345) by Macquart, 1835 (p. 549) at the same time placed in synonymy with *M. cellaris* Linnaeus, 1758 (thus equally invalid). However, Zetterstedt's (1847, p. 2542) designation of *M. funebris* Fabricius, 1787 has been accepted by most subsequent taxonomists according to the Principle of the First Reviser (Article 24.2 of the Code – Determination by the First Reviser). Furthermore, *M. funebris* Fabricius, 1787 was transferred to *Drosophila* by the

author of the genus *Drosophila* Fallén, 1823 (p. 5), whereas *Drosophila melanogaster* Meigen, 1830 (p. 85) was described later. This can be taken as an additional taxonomic argument in favor of the preservation of *Musca funebris* Fabricius, 1787 as the type of the genus *Drosophila* Fallén than for *D. melanogaster* Meigen, 1830 (Article 23.1 of the Code—Statement of the Principle of Priority).

Drosophila is the nominotypical genus of the family DROSOPHILIDAE, and any change of the type designation of the genus would inevitably entail dramatic nomenclatural changes in the whole family (Article 36.2 of the Code – Type Genus). Although authors have attempted to make such changes on the basis of molecular phylogenetic studies, it is hard to think that a single application can resolve all nomenclatural problems in a group as large as the genus *Drosophila* (~1,500 spp.) of which molecular phylogenies are scarcely congruent (Ashburner et al., 2005). If the authors' propositions of the new generic names formed after the splitting of the current paraphyletic genus *Drosophila* were accepted, three out of the twelve model species with complete genome sequence of *Drosophila* would no longer carry the generic name *Drosophila*: namely, *D. virilis* Sturtevant, 1916 (p. 330), *D. mojavensis* Patterson in Patterson & Crow, 1940 (p. 251), and *D. grimshawi* (Oldenberg, 1914, p. 23). Regarding the popularity of *Drosophila* as a model to biology grant agencies, biologists working on these species and on other related taxa (including *D. funebris*) would feel considerable injustice in comparison to biologists working on *Drosophila melanogaster*-related taxa. Although I totally agree with the authors that the current paraphyletic status of the genus *Drosophila* violates modern systematic practice, I urge that if a taxonomic change has to be made, it has to follow conventional taxonomic rules with an upgrading of the monophyletic subgenus *Sophophora*, of which *Drosophila melanogaster* is the type by original designation (Sturtevant, 1939, p. 140) to the rank of genus.

In conclusion, I hope that the Commission will maintain *Drosophila funebris* (Fabricius, 1787) as the type of the nominotypical genus *Drosophila* Fallén, 1823 following both the Principles of Priority and of First Reviser.

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In my opinion, if the Commission decides to support this application that would be against the rules of the Code and would create bad precedent.

**Comment on the proposed suppression of *Gobius lagocephalus* Pallas, 1770
(Osteichthyes, Teleostei, GOBIIDAE)
(Case 3383; see BZN 64: 103–107)**

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We are writing to register our objection to the proposed suppression of the specific name *Gobius lagocephalus*. As will be pointed out, the proposal by Smith & Sparks (2007) omits facts that make the application pointless; the described problem does not exist and has been solved elsewhere; suppressing the name *G. lagocephalus* would negatively affect the name of a well known and widely distributed species without creating any benefit (the effect would be the reverse) to the nomenclature of this group of fishes.

In their proposal Smith & Sparks (2007) present as Option 2: ‘designating a neotype that is most consistent with current usage (as a species of *Sicyopterus*)’—this has already been done (Kottelat 2007). The preservation of the status quo with regard to the name *Gobius lagocephalus*, presently known widely as *Sicyopterus lagocephalus*, is desired for stability of nomenclature.

In their application, Smith & Sparks (2007) mention as holotype the specimen on which Pallas (1770) based his description and figure. They mention that this specimen is lost and refer to ‘Kottelat, in press’ as a source for this information. This

information was included in a manuscript not yet accepted for publication, and was used by Smith & Sparks without the author's knowledge. Smith & Sparks do not mention that this now published article (Kottelat, 2007; available online since June 2006) includes information and nomenclatural acts that show their application unnecessary and disagreeing with the facts.

Contrary to Smith & Sparks' (2007) comment, there is no holotype for *G. lagocephalus* but there are two syntypes. Besides the specimen in his possession, Pallas explicitly identified in his description of *G. lagocephalus* a specimen described and figured by Koelreuter (1764). This specimen is thus part of the type series. These two syntypes are now lost (Kottelat, 2007).

The two specimens (based on data in the descriptions and on the figures) are not conspecific (differences described by Kottelat, 2007 and Smith & Sparks, 2007). The only specimen that can be partly identified is that of Pallas, as his Figure 7 (Plate II) shows the single central lip cleft characteristic of the genus *Sicydium* (unless the artist overlooked the two lateral clefts of *Sicyopterus*, however, given the accuracy of the illustrations of the other fish on the plates, this is unlikely). The drawings of Koelreuter's specimen (Koelreuter, 1764: plate 9, figs 3–4) have not been done by such a skilled artist as was available for Pallas's fish (Pallas 1770: plate 2, figs 6–7) and cannot be identified to genus with any certainty, but it is clearly a sicydiine. The pectoral fin ray counts given by Koelreuter (15 rays) and Pallas (17 rays) are close to the lower end of the range of 17–21 pectoral fin rays for *Sicyopterus* and 17–22 for *Sicydium* (Watson, 2000; Watson et al., 2000; Larson, unpubl. data) and it is possible that both Koelreuter and Pallas missed seeing a fin ray or two (adult sicydiines have fleshy pectoral fins and even today with better equipment these rays are often overlooked).

Pallas's specimen was stated to be from 'America' and the origin of Koelreuter's specimen is unknown (Pallas wrote: 'ignorant of its native land' (our rough translation)). The original type locality therefore cannot be 'America' as this is the locality of only one of the two syntypes. Where Koelreuter obtained his fish from remains unknown.

There have already been two neotype designations for *Gobius lagocephalus* (Fricke, 1999; Watson et al., 2000), both invalid because the authors did not satisfy the conditions of Article 75.3 of the Code, especially clause 75.3.4, which requires information on the lost type material and efforts made to locate it. This is discussed by Kottelat (2007) and Smith & Sparks (2007). Both Fricke's and Watson et al.'s neotype designations were based on specimens from Réunion Island, linking the name to the species known under that name since 1842, thus attempting to preserve stability of nomenclature.

Kottelat (2007) discussed the situation, discussed his attempts to locate the syntypes and their absence and designated a neotype satisfying the criteria of Article 75.3 of the Code. To minimize the risk of future confusion, he designated as neotype the specimen (SMF 28571) previously invalidly designated by Watson et al. (2000). With this neotype designation the name *G. lagocephalus* is definitively linked with the species recognised under this name since 1842 and the type locality is now Ravine St. Gilles on Réunion Island.

Smith & Sparks' argument seems to center around the type locality of *G. lagocephalus*, which they consider as 'America' alone, and they perceive that a

neotype would have been from 'America', thus threatening the generic name *Sicydium* presently used for for at least 17 North and South American species. To 'rescue' the stability of the nomenclature of the American genus name *Sicydium* (and of the Mascarene endemic *Cotylopus*), they choose the alternative to destabilize the nomenclature in use in the Indo-West Pacific. On the other hand, this potential problem was pointed out by Kottelat (2007) and his approach was to designate a neotype that consolidates the present use of the species and at the same time preserves the use of *Sicydium* and *Cotylopus*.

The name *G. lagocephalus* (now *Sicyopterus lagocephalus*) has been continuously used since 1842 for a fish species distributed along the coasts and islands of the Indian Ocean and the Western Pacific Ocean, from Madagascar to southern Japan and New Guinea (Watson et al., 2000). Some authors do not recognise the different populations throughout this area as conspecific and consider *S. lagocephalus* to be restricted to Madagascar, the Mascarene Islands and the east coast of Africa. But all have used the name as valid for a species within this area. Further, the species called *S. lagocephalus* has a commercial value, as the fish is a local delicacy on Réunion Island. We have decided not to count usages of the name *S. lagocephalus*, we need only to mention that it is cited in all the classical as well as recent faunal works of that area; some examples: Boulenger (1916), Smith (1959), Teugels et al. (1985), Daget et al. (1986), Bauchot et al. (1988), Balon & Bruton (1994), Keith et al. (1999), Watson et al. (2000), Allen et al. (2002), Nakabo (2002), Senou et al. (2004), Keith et al. (2005) and Hoese & Larson (2006). It also seems sufficient to state that the only authors we are aware of who have not considered *S. lagocephalus* as valid (and *nolens volens* disturbed stability of nomenclature) were Sparks & Nelson (2004) and now Smith & Sparks (2007).

In order to preserve the stability of nomenclature we recommend that the Commission rejects this unnecessary application. The Commission is further asked:

- (1) to place on the Official List of Available Names in Zoology the name *lagocephalus* Pallas, 1770, as published in the binomen *Gobius lagocephalus*;
- (2) to confirm the designation of specimen SMF 28571 as the neotype of *Gobius lagocephalus* Pallas, 1770, as designated in Kottelat (2007).

Kottelat's (2007) paper is held by the Secretariat and forms an integral part of this comment.

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Comments on the proposed conservation of *Buettneria* Case, 1922 (Amphibia)
(Case 3420; see BZN **64**: 252–254)

(1) Gilles Cuny

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I am writing to support the application of Lucas et al. (2007) (Case 3420) to conserve the long- and widely-used name of the Triassic amphibian *Buettneria* Case, 1922. This name is a homonym of a little-used name of an insect (*Buettneria* Karsch, 1888), and abandoning it would destabilise the nomenclature of this amphibian group. To serve the stability and universality of zoological nomenclature, the name *Buettneria* Karsch, 1888 should be suppressed, and the name *Buettneria* Case, 1922 should be conserved.

(2) Robert M. Sullivan

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I support the application of Lucas et al. (2007) to conserve the long- and widely-used name of the Late Triassic metoposaurid amphibian *Buettneria* Case, 1922. *Buettneria* is one of the few Mesozoic vertebrates known from Pennsylvania that is represented by cranial and postcranial remains. As such, this metoposaurid has been the subject of much interest on the national, international and local levels (Kochanov & Sullivan, 1994; Lucas & Sullivan, 1996; Sullivan et al., 1995). It is also

a name that is widely used in many museum exhibits where material of this metoposaurid is on display. Abandoning this well known, and widely used, name because it is the homonym of a little-used, and arguably obscure, name of an insect (*Buettneria* Karsch, 1888), only serves to destabilize zoological nomenclature. Thus, the name *Buettneria* Karsch, 1888 should be suppressed, and the name *Buettneria* Case, 1922 should be conserved.

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(3) Claudia A. Marsicano

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I support the application of Lucas et al. (2007) to conserve the long- and widely-used name of the Triassic amphibian *Buettneria* Case, 1922. Abandoning this name in favour of a little-used name of an insect (*Buettneria* Karsch, 1888) would lead to a considerable confusion in the nomenclature. To maintain the stability and universality of zoological nomenclature, the name *Buettneria* Karsch, 1888 should be suppressed, and the name *Buettneria* Case, 1922 should be conserved.

(4) Bernhard Hausdorf

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When proposing to conserve the name of the Triassic amphibian genus *Buettneria* Case, 1922 by suppressing the senior homonym *Buettneria* Karsch, 1889 (Insecta, Orthoptera), Lucas et al. (2007) failed to notice that there is another senior homonym, *Buettneria* Simroth, 1888 (Mollusca, Gastropoda). Simroth (1910) replaced the supposedly preoccupied name *Buettneria* Simroth, 1888 by *Buettnerella* Simroth, 1910. However, as already noted by van Goethem (1977), the description of Karsch was published only at the beginning of February 1889, whereas the paper of Simroth (1888) had been published on 20th February 1888. *Buettneria* Simroth, 1888 is in current use for African land snails. The junior homonym *Buettneria* Karsch, 1889 has to be replaced by its junior subjective synonym *Stenacropteryx* Karsch, 1896. I do not think that the use of the plenary power to suppress the generic names *Buettneria* Simroth, 1888 and *Buettneria* Karsch, 1889 would be justified to conserve the junior homonym *Buettneria* Case, 1922. Rather, *Buettneria* Case, 1922 can be replaced by *Koskinonodon* Branson and Mehl, 1929 as proposed by Mueller (2007) without threatening the stability or universality of nomenclature.

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Comment on the proposed precedence of *Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*; Reptilia, Testudines) over *Chelodina oblonga* Gray, 1841 (Case 3351; see BZN **63: 187–193, **64**: 68, 127–128)**

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I write in support of the proposed precedence of *Chelodina rugosa* Ogilby, 1890 over *Chelodina oblonga* Gray, 1841 for the reasons specified in Case 3351 and Thomson's (2007) Comment (BZN **64**: 127–128). Further, I support usage of the name *Chelodina colliei* Gray, 1856 for the species known under the misapplied name *Chelodina oblonga* Gray, 1841 for the past 40 years (see Case 3351). When it is considered that the same species was correctly named *Chelodina colliei* Gray, 1856 for 136 years, perpetuating the misapplication seems to be a bad choice, although Savage (2007, BZN **64**: 68) suggested this by his application to the Commission to set aside all previous designations of type specimen for *Chelodina oblonga* Gray, 1841 and to designate as its neotype BMNH 1947.3.5.91, the lectotype of *Chelodina colliei* Gray, 1856. However, Savage (2007) overlooked the long correct usage of *Chelodina colliei* Gray, 1856 (see Thomson's reply in BZN **64**: 127–128).

In conclusion, the suggestions and considerations in Thomson's Case 3351 and Comment in BZN **64**: 127–128 seem reasonable and the best solution to a nomenclatural problem. Therefore, the name *Chelodina colliei* was already accepted in the recently published 'Checklist of Chelonians of the World' (Fritz & Havaš 2007, *Vertebrate Zoology* **57**: 149–368), serving as standard reference for CITES.

Though, the matter became somewhat more complicated in the meantime. In a hobbyist journal, McCord & Joseph-Ouni (2007, *Reptilia* **52**: 56–64) 'rejected' the holotype of *Chelodina oblonga* Gray, 1841 and designated the lectotype of *Chelodina colliei* Gray, 1856 as neotype of *Chelodina oblonga* Gray, 1841, thereby repeating the arguments of Savage (2007) without mentioning Savage's Comment in the BZN. It is obvious from Article 75.6 of the Code that for such action the plenary power of the International Commission on Zoological Nomenclature is needed. Therefore, the lectotype designation by McCord & Joseph-Ouni (2007) is invalid and unwelcome, contributing only to further confusion.

Comment on the proposed conservation of *Atractus* Wagler, 1828 and *Atractus trilineatus* Wagler, 1828 (Reptilia, Serpentes)

(Case 3365; see BZN 64: 60–63)

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As concerned taxonomists who separately and collaboratively continue to publish on *Atractus* we strongly support conservation of this name as proposed by Hoogmoed & Savage (BZN 64: 60–63). The senior name *Brachyura* Kuhl & van Hasselt, 1822 has not been used for well over a century and is virtually forgotten. The name *Atractus* Wagler, 1828, on the other hand is recognized by a wide range of biologists, inasmuch as it applies to the largest genus of colubrid snakes in the New World.

Comment on the proposed conservation of *Columba roseogrisea* Sundevall, 1857

(currently *Streptopelia roseogrisea*; Aves, COLUMBIDAE)

(Case 3380: see BZN 64: 108–112, 118–122)

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I noted in Case 3380 that the wild and domestic species names given to the chicken *Gallus domesticus* and red junglefowl *Gallus gallus* may require Commission attention in future. However, the name *Gallus gallus* (Linnaeus, 1758, p. 158), which is usually applied to the red junglefowl, is senior to the name sometimes given to the domestic chicken *Gallus domesticus* (Gmelin, 1789, p. 737). Widespread usage of ‘*Gallus domesticus* (Linnaeus, 1758)’ or ‘*Gallus gallus domesticus* (Linnaeus, 1758)’ in recent ornithological literature and perpetuated in Case 3380 is an incorrect citation.

The relative priority of *Gallus gallus* and *Gallus domesticus* (in the context of wild and domestic names) does not require the Commission’s attention because the species name for the wild population is senior to the species name for the domestic population. If the two names are considered synonymous or a trinomial is used, the wild species name *Gallus gallus* (Linnaeus, 1758) has priority under the Principle of Priority (Article 23.1 of the Code).

The above matter was mentioned only by way of introduction in Case 3380 and does not affect the facts or recommendations in Case 3380.

OPINION 2188 (Case 3353)***Obovaria* Rafinesque, 1819 (Mollusca, Bivalvia): usage conserved by designation of *Unio retusa* Lamarck, 1819 as the type species**

Abstract. The Commission has ruled that the usage of the name *Obovaria* Rafinesque, 1819 is conserved for a freshwater bivalve from the eastern United States by designation of *Unio retusa* Lamarck, 1819 as the type species and that the name *Obovaria obovalis* Rafinesque, 1820 is a nomen oblitum.

Keywords. Nomenclature; taxonomy; Bivalvia; UNIONIDAE; *Obovaria*; *Obovaria obovalis*; *Obovaria retusa*; *Fusconaia ebena*; eastern United States; freshwater mussel.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Obovaria* Rafinesque, 1819 are set aside and *Unio retusa* Lamarck, 1819 is designated as the type species of *Obovaria* Rafinesque, 1819.
- (2) The name *obovalis* Rafinesque, 1820, as published in the binomen *Obovaria obovalis*, is hereby ruled to be a nomen oblitum.
- (3) The name *Obovaria* Rafinesque, 1819 (gender: feminine), type species by designation in (1) above *Unio retusa* Lamarck, 1819, is hereby placed on the Official List of Generic Names in Zoology.
- (4) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *retusa* Lamarck, 1819, as published in the binomen *Unio retusa* (specific name of the type species of *Obovaria* Rafinesque, 1819, as ruled in (1) above);
 - (b) *ebenus* Lea, 1831, as published in the binomen *Unio ebenus* (currently *Fusconaia ebena*).
- (5) The name *obovalis* Rafinesque, 1820, as published in the binomen *Obovaria obovalis* (ruled in (2) above to be a nomen oblitum), is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3353

An application to conserve the usage of the widely used name *Obovaria* Rafinesque, 1819 (freshwater bivalve from the eastern United States) by the designation of *Unio retusa* Lamarck, 1819 as the type species and to suppress the name *obovalis*, as published in the binomen *Obovaria obovalis* Rafinesque, 1820, was received from Arthur E. Bogan (*North Carolina State Museum of Natural Sciences, Raleigh, North Carolina, U.S.A.*), James D. Williams (*Florida Museum of Natural History, University of Florida, Gainesville, Florida, U.S.A.*) and Jeffrey T. Garner (*Alabama Division of Wildlife and Freshwater Fisheries, Florence, Alabama, U.S.A.*) on 10 May 2005. After correspondence the case was published in BZN **63**: 226–230 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. A supportive comment was published in BZN **64**(2): 119–120.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN **63**: 228. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 22: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kerzhner, Kottelat, Krell, Kullander, Lamas, Lim, Mahnert, Mawatari, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative vote – none.

Minelli, Ng and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

ebenus, *Unio*, Lea, 1831, *Transactions of the American Philosophical Society, New Series*, **4**: 84.
obovalis, *Obovaria*, Rafinesque, 1820, *Annales Générales des Sciences Physiques, à Bruxelles*, **5**(5): 311.

Obovaria Rafinesque, 1819, *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts*, **88**: 426.

retusa, *Unio*, Lamarck, 1819, *Histoire naturelle des animaux sans vertèbres*, vol. 6, part 1, p. 72.

OPINION 2189 (Case 3350)***Oncopus* Thorell, 1876 and ONCOPODIDAE Thorell, 1876 (Arachnida, Opiliones): proposed conservation of the names not approved**

Abstract. An application to conserve the generic name *Oncopus* Thorell, 1876 for a group of nine opilionids from Southeast Asia, together with the family-group name ONCOPODIDAE Thorell, 1876 for geometrid moths from Asia, by suppressing the little used senior homonym *Oncopus* Herrich-Schäffer, 1855 for two South American Lepidoptera has not been approved.

Keywords. Nomenclature; taxonomy; Insecta, Lepidoptera; GEOMETRIDAE; moths; Arachnida; Opiliones; ONCOPODIDAE; *Oncopus*; harvestmen; Southeast Asia.

Ruling

- (1) It is hereby ruled that the application for the proposed conservation of *Oncopus* Thorell, 1876 and ONCOPODIDAE Thorell, 1876 is not approved.
- (2) The name *Oncopus* Herrich-Schäffer, 1855 (gender: masculine), type species, by subsequent designation by Prout in Strand (1934), *Paidia citrosa* Geyer, 1832, is hereby placed on the Official List of Generic Names in Zoology (Lepidoptera).
- (3) The name *citrosa* Geyer, 1832, as published in the binomen *Paidia citrosa* (specific name of the type species of *Oncopus* Herrich-Schäffer, 1855) is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Oncopus* Thorell, 1876 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology (Arachnida).
- (5) The name ONCOPODIDAE Thorell, 1876 is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology (type genus *Oncopus* Thorell, 1876) (Arachnida).

History of Case 3350

An application to conserve the generic name *Oncopus* Thorell, 1876 for a group of nine opilionids from Southeast Asia, together with the family-group name ONCOPODIDAE Thorell, 1876 for geometrid moths from Asia, by suppressing the little used senior homonym *Oncopus* Herrich-Schäffer, 1855 for two South American Lepidoptera was received from Peter J. Schwendinger (*Muséum d'histoire naturelle, Genève, Switzerland*) and Jochen Martens (*Institut für Zoologie, Johannes Gutenberg-Universität Mainz, Mainz, Germany*) on 15 May 2005.

After correspondence the case was published in BZN 63: 167–171 (September 2006). The title, abstract and keywords of the case were published on the Commission's website. Four supportive comments on this case were received and published (see BZN 64(1): 64).

Decision of the Commission

On 1 June 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 169. At the close of the voting period on 1 September 2007 the votes were as follows:

Affirmative votes – 11: Bogutskaya, Brothers, Grygier, Halliday, Kottelat, Mahnert, Mawatari, Papp, Rosenberg, Štys and Zhang.

Negative votes – 13: Alonso-Zarazaga, Bouchet, Fautin, Kerzhner, Krell, Kullander, Lamas, Lim, Ng, Pape, Patterson, Pyle and van Tol.

Minelli was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

citrosa, *Paidia*, Geyer in Hübner, 1832, *Zuträge zur Sammlung exotischer Schmetterlinge, bestehend in Bekundigung einzelner Fliegmuster neuer oder rarer nichteuropäischer Gattungen*, vol. 4, p. 18, pl. [114], figs. 661, 662.

Oncopus Herrich-Schäffer, 1855, *Systematische Bearbeitung der Schmetterlinge von Europa, zugleich als Text, Revision und Supplement zu Jakob Hübner's Sammlung Europäischer Schmetterlinge*, vol. 6, p. 99.

Oncopus Thorell, 1876, *Annali del Museo civico di Storia Naturale di Genova*, (1)9: 134.

ONCOPODIDAE Thorell, 1876, *Annali del Museo civico di Storia Naturale di Genova*, (1)9: 134.

The following is the reference for the designation of *Paidia citrosa* Geyer in Hübner, 1832 as the type species of the nominal genus *Oncopus* Herrich-Schäffer, 1855:

Prout, L.B. in Strand, E. (Ed.). 1934. *Lepidopterorum Catalogus*, vol. 61, p. 137. Junk, Berlin.

OPINION 2190 (Case 3354)***Tydeus* Koch, 1836 (Arachnida, Acari): *Tydeus spathulatus* Oudemans, 1928 designated as the type species**

Abstract. The Commission has ruled that all previous type species fixations for the nominal genus *Tydeus* Koch, 1836 are set aside and *Tydeus spathulatus* Oudemans, 1928 is designated as the type species.

Keywords. Nomenclature; taxonomy; Acari; *Tydeus*; *Tydeus spathulatus*; tydeid mites.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Tydeus* Koch, 1836 are set aside and *Tydeus spathulatus* Oudemans, 1928 is designated as the type species of *Tydeus* Koch, 1836.
- (2) The name *Tydeus* Koch, 1836 (gender: masculine), type species by designation in (1) above *Tydeus spathulatus* Oudemans, 1928 is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *spathulatus* Oudemans, 1928, as published in the binomen *Tydeus spathulatus* (specific name of the type species of *Tydeus* Koch, 1836) is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3354

An application to set aside all previous type species fixations for the nominal genus *Tydeus* Koch, 1836 was received from Henri M. André (*Musée royal de l'Afrique centrale, Tervuren, Belgium*) and Andrzej Kaźmierski (*A. Mickiewicz University, Poznan, Poland*) on 3 June 2005. After correspondence the case was published in BZN 63: 236–238 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 237. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 16: Bogutskaya, Bouchet, Fautin, Halliday, Kerzhner, Kottelat, Krell, Lamas, Lim, Mahnert, Mawatari, Papp, Patterson, Rosenberg, van Tol and Zhang.

Negative votes – 6: Alonso-Zarazaga, Brothers, Grygier, Kullander, Pape and Štys. Minelli, Ng and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

spathulatus, *Tydeus*, Oudemans, 1928, *Entomologische Berichten*, 7: 380.

Tydeus Koch, 1836, *Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur deutschen Fauna*, Heft 4=137, unnumbered page.

OPINION 2191 (Case 3332)

Cercophonius brachycentrus bivittatus Thorell, 1877 (currently *Orobothriurus bivittatus*; Arachnida, Scorpiones): proposed replacement of the holotype by the designation of a neotype not accepted

Abstract. The Commission has ruled that the type material of the scorpion *Cercophonius brachycentrus bivittatus* Thorell, 1877 (currently *Orobothriurus bivittatus*) from Argentina should not be replaced by a neotype. The original material still exists and there is no exceptional need to designate a neotype.

Keywords. Nomenclature; taxonomy; Arachnida; Scorpiones; *Orobothriurus*; *Orobothriurus bivittatus*; scorpions; Argentina.

Ruling

- (1) It is hereby ruled that the holotype fixation for the nominal species *Cercophonius brachycentrus bivittatus* Thorell, 1877 (currently *Orobothriurus bivittatus*) is maintained.
- (2) The existing entry on the Official List of Specific Names in Zoology for the name *bivittatus* Thorell, 1877, as published in the trinomen *Cercophonius brachycentrus bivittatus*, is not emended except to record the case number of the present opinion.

History of Case 3332

An application to set aside all previous fixations of a name-bearing type for *Cercophonius brachycentrus bivittatus* Thorell, 1877 (currently *Orobothriurus bivittatus*) and to designate as the neotype a specimen in the Universidad Nacional de Córdoba, Argentina was received from Luis E. Acosta (*Universidad Nacional de Córdoba, Argentina*) on 23 November 2004. The name *Cercophonius brachycentrus bivittatus* Thorell, 1877 had been placed on the Official List of Specific Names in Zoology in Opinion 2074 (June 2004).

After correspondence the case was published in BZN **63**: 20–22 (March 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2006 the members of the Commission were invited to vote on the proposals published in BZN **63**: 21. The case received a majority of the votes cast but failed to reach the required two-thirds majority (18 votes FOR and 10 AGAINST). The application was submitted for a second vote under Bylaw 35. On 1 June 2007 the members of the Commission were invited to vote again on the proposals published in BZN **63**: 21. At the close of the voting period on 1 September 2007 the votes were as follows:

Affirmative votes – 12: Halliday, Kottelat, Krell, Lamas, Lim, Mahnert, Mawatari, Ng, Papp, Patterson, Štys and Zhang.

Negative votes – 11: Alonso-Zarazaga, Bogutskaya, Brothers, Fautin, Grygier, Kerzhner, Kullander, Pape, Pyle, Rosenberg and van Tol.

Bouchet abstained. Minelli was on leave of absence.

The case received a majority of the votes cast on the second vote but since the two-thirds majority required under Bylaw 35 was not achieved the proposals were not approved.

Abstaining, Bouchet observed that the systematics of *Orobothriurus* is still an active research area. As long as there is only one species of *Orobothriurus* on the Sierra del Tontal, there is no need to replace the holotype. Grygier considered that there does not seem to be an exceptional need involving a complex zoological problem (Article 75.3 of the Code) and that stability and universality do not appear to be threatened at present (Article 85.5 of the Code).

Original reference

The following is the original reference to the name placed on an Official List by the ruling in Opinion 2074:

bivittatus, *Cercophonius brachycentrus*, Thorell, 1877, *Atti della Società Italiana di Scienze Naturali*, **19**: 183.

OPINION 2192 (Case 3367)

***Curculio contractus* Marsham, 1802 (currently *Ceutorhynchus contractus*; Insecta, Coleoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Ceutorhynchus contractus* (Marsham, 1802) is conserved for a well known species of European weevil (family CURCULIONIDAE) by suppression of a little used senior primary homonym *Curculio contractus* Geoffroy in Fourcroy, 1785.

Keywords. Nomenclature; taxonomy; CURCULIONIDAE; *Curculio*; *Ceutorhynchus*; *Ceutorhynchus contractus*; Europe; weevil.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *contractus* Geoffroy in Fourcroy, 1785, as published in the binomen *Curculio contractus*, and all uses of the name *Curculio contractus* before Marsham (1802) are suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.
- (2) The name *contractus* Marsham, 1802, as published in the binomen *Curculio contractus*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *contractus* Geoffroy in Fourcroy, 1785, as published in the binomen *Curculio contractus* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3367

An application to conserve the specific name *Curculio contractus* Marsham, 1802 for a well-known species of European weevil (family CURCULIONIDAE) by suppression of a little used senior homonym *Curculio contractus* Geoffroy in Fourcroy, 1785, was received from M.G. Morris (*Natural History Museum, London, U.K.*) on 4 November 2005. After correspondence the case was published in BZN 63: 251–254 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. Comments in support of the application were published in BZN 64(1): 67; 64(2): 122. An additional supportive comment was forwarded to the Commissioners together with the voting papers.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 253. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 19: Alonso-Zarazaga, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Lim, Mahnert, Mawatari, Pape, Papp, Rosenberg, Štys, van Tol and Zhang.

Negative votes – 3: Bogutskaya, Kerzhner and Patterson.

Minelli, Ng and Pyle were on leave of absence.

Voting against, Kerzhner commented that no ruling was necessary as the citation of a name as a senior homonym did not necessarily constitute its usage as a valid name. Also voting against, Patterson observed that, although he was sympathetic to the proposal, the consequences of the use of the senior homonym had not been sufficiently discussed.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

contractus, *Curculio*, Geoffroy in Fourcroy, 1785, *Entomologia parisiensis: sive Catalogus Insectorum quae in Agro Parisiensi reperiuntur: secundum methodum Geoffraeanam in sectiones, genera et specibus distributus: cui addita sunt nomina trivialia et fere trecentae novae species*, p. 126.

contractus, *Curculio*, Marsham, 1802, *Coleoptera Britannica, sistens Insecta Coleoptera Britanniae indigena, secundum methodum Linnaeanam disposita*, p. 250.

OPINION 2193 (Case 3339)***Celaenorrhinus ratna* Fruhstorfer, 1908 (Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Celaenorrhinus ratna* Fruhstorfer, 1908 is conserved for a widespread tropical butterfly (HESPERIIDAE) by suppression of *Notocrypta kawakamii* (currently *Celaenorrhinus kawakamii*) Matsumura, 1907.

Keywords. Nomenclature; taxonomy; HESPERIIDAE; *Celaenorrhinus ratna*; *Celaenorrhinus kawakamii*; hesperiid butterfly; Asia.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *ratna* Fruhstorfer, 1908, as published in the trinomen *Celaenorrhinus sumitra ratna*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3339

An application to conserve the specific name *Celaenorrhinus ratna* Fruhstorfer, 1908 for a widespread hesperiid butterfly, very common in the tropics, was received from Yu-Feng Hsu (*National Taiwan Normal University, Taipei, Taiwan*), Hideyuki Chiba (*Bishop Museum, Honolulu, Hawaii, U.S.A.*) and Shen-Horn Yen (*National Sun Yat-Sen University, Kaohsiung, Taiwan*) on 10 February 2005. After correspondence the case was published in BZN **63**: 114–117 (June 2006). The title, abstract and keywords of the case were published on the Commission's website. Comments in support of the application were published in BZN **63**(3): 201–202; **63**(4): 274–275.

Decision of the Commission

On 1 March 2007 the members of the Commission were invited to vote on the proposals published in BZN **63**: 115. The case received a majority of the votes cast but failed to reach the required two-thirds majority (17 votes FOR and 10 AGAINST). The application was submitted for a second vote under Bylaw 35. On 1 September 2007 the members of the Commission were invited to vote again on the proposals published in BZN **63**: 115. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 16: Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kerzhner, Krell, Lim, Mahnert, Mawatari, Papp, Patterson, Rosenberg, van Tol and Zhang.

Negative votes – 6: Alonso-Zarazaga, Kottelat, Kullander, Lamas, Pape and Štys. Minelli, Ng and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

kawakamii, *Notocrypta*, Matsumura, 1907, *Insect world*, **11**: 50.

ratna, *Celaenorrhinus sumitra*, Fruhstorfer, 1908, *Entomologische Zeitschrift*, **22**: 49.

OPINION 2194 (Case 3356)***Schizechinus* Pomel, 1869 (Echinodermata, Echinoidea): usage not conserved and designation of *Psammechinus serresii* Desor, 1856 as the type species not accepted**

Abstract. The Commission has ruled that the current usage of the name *Schizechinus* Pomel, 1869 (Echinodermata, Echinoidea) for a genus of toxopneustid echinoids from the Miocene of the Mediterranean region and possibly the Neogene of Australia is not conserved. The name *Echinus serresii* Des Moulins, 1837 is maintained and designation of *Psammechinus serresii* Desor, 1856 as the type species of *Schizechinus* Pomel, 1869 is not accepted.

Keywords. Nomenclature; taxonomy; Echinodermata; Echinoidea; TOXOPNEUSTIDAE; *Schizechinus*; *Echinus serresii*; *Schizechinus serresii*; Neogene; Miocene; Mediterranean.

Ruling

- (1) It is hereby ruled that:
 - (a) the name *serresii* Des Moulins, 1837, as published in the binomen *Echinus serresii*, is not suppressed;
 - (b) the designation of *Psammechinus serresii* Desor, 1856 as the type species of *Schizechinus* Pomel, 1869 is not accepted.
- (2) No names are placed on the Official Lists or Indexes in this ruling.

History of Case 3356

An application to conserve the current usage of the name *Schizechinus* Pomel, 1869 (Echinodermata, Echinoidea) by suppression of *Echinus serresii* Des Moulins, 1837, and to designate *Psammechinus serresii* Desor, 1856 as the type species of *Schizechinus* Pomel, 1869 was received from Andreas Kroh (*Natural History Museum, Vienna, Austria*) and Andrew B. Smith (*Natural History Museum, London, U.K.*) on 2 April 2005. After correspondence the case was published in BZN **63**: 259–266 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN **63**: 264. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 9: Alonso-Zarazaga, Bouchet, Brothers, Halliday, Krell, Mahnert, Papp, Patterson and van Tol.

Negative votes – 12: Bogutskaya, Fautin, Grygier, Kerzhner, Kottelat, Kullander, Lamas, Lim, Mawatari, Pape, Rosenberg and Štys.

Zhang abstained.

Minelli, Ng and Pyle were on leave of absence.

Voting against, Kerzhner and Bogutskaya commented that it would be much simpler and more logical to designate under the plenary power *Anapesus tuberculatus* Pomel, 1887 (a junior synonym of *Echinus duceiei* Wright, 1855; currently *Schizechinus duceiei*) from the Miocene of Malta and Algeria and doubtlessly in the genus *Schizechinus* as the type species of *Schizechinus* Pomel, 1869. Also voting against, Grygier observed that although the citation by Des Moulins (1837) of two earlier-published illustrations was an indication making his species *Echinus serressii* available, Des Moulins's own material from Martigues, which might not or might belong to either of the illustrated species, is also part of the type series. If any of this material exists, a lectotype of confirmed identity could be selected from it (or the whole lot suppressed if need be). The application did not mention whether this material was extant or not (qualifying conditions of Article 75.3.4); the neotype designation in BZN 63(4): 261 was thus invalid. Grygier also commented that it was not clear from the text of the application if Clansayes had been mentioned by Des Moulins (1837), although the application stated that material of Des Moulins (1837) was both from Martigues and Clansayes, and whether the specimens used by Desor (1858) were newly collected, or were Des Moulins's, possibly syntypic. Grygier also noted that it was not clear why the neotype had to be chosen for *Psammechinus serressii* Desor, 1856 and for *Echinus serressii* Des Moulins, 1837, as presumably Clansayes (the locality of the proposed neotype) is sufficiently close to Martigues (the type locality of *Echinus serressii* Des Moulins, 1837), and if some of Des Moulins's material came from Clansayes, there should have been no problem in attributing the species to its original author. A similar concern about the possibly surviving syntypes was raised by Kottelat. Voting against, Rosenberg noted that the neotype designation in para. 9 of the application was invalid, because *Psammechinus serressii* Desor, 1856 was not an available name, being a subsequent reference to Des Moulins's taxon. Also voting against, Štys commented that the relevance of invoking Recommendations 69A.3 and 69A.10 was not clear and the case lacked important information on why the three extant species of *Schizechinus* were not included in the discussion, and the case was limited to the extinct taxa only. Štys also noted that from the text of the application he had to assume that there was formally no such species as *Psammechinus serressii* Desor, 1856.

No names are placed on the Official Lists or Indexes in this ruling.

OPINION 2195 (Case 3303)***Hyloxalus panamansis* Dunn, 1933 (currently *Colostethus panamansis*; Amphibia, Anura): original spelling maintained**

Abstract. The Commission has ruled that the original spelling *Hyloxalus panamansis* Dunn, 1933 should be maintained for the specific name of a Central American dendrobatid frog. The subsequent spelling *Hyloxalus panamensis* Dunn, 1940 is not conserved.

Keywords. Nomenclature; taxonomy; Amphibia; Anura; DENDROBATIDAE; *Colostethus*; *Hyloxalus panamansis*; *Hyloxalus panamensis*; Central America; Panama; frog.

Ruling

- (1) It is hereby ruled that the original spelling is to be maintained for the name *panamansis* Dunn, 1933, as published in the binomen *Hyloxalus panamansis*.
- (2) The name *panamansis* Dunn, 1933, as published in the binomen *Hyloxalus panamansis*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *panamensis* Dunn, 1940, as published in the binomen *Hyloxalus panamensis*, is hereby placed on the Official Index of Rejected and Invalid Names in Zoology, as an unjustified emendation of *Hyloxalus panamansis* Dunn, 1933.

History of Case 3303

An application to conserve the subsequent spelling of the specific name *Hyloxalus panamensis* Dunn, 1940 for a Central American dendrobatid frog, coming into prevailing use, but threatened by the correct original spelling *Hyloxalus panamansis* Dunn, 1933, was received from Taran Grant, Darrel R. Frost, Charles W. Myers (*American Museum of Natural History, New York, U.S.A.*), Roberto Ibáñez D. (*Smithsonian Tropical Research Institute, Balboa, Panamá*) and Jay M. Savage (*San Diego State University, San Diego, California, U.S.A.*) on 1 October 2003.

After correspondence the case was published in BZN 63: 39–41 (March 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2006 the members of the Commission were invited to vote on the proposals published in BZN 63: 41. The case received a majority of the votes cast but failed to reach the required two-thirds majority (18 votes FOR and 10 AGAINST). The application was submitted for a second vote under Bylaw 35. On 1 June 2007 the members of the Commission were invited to vote again on the proposals published in BZN 63: 41. At the close of the voting period on 1 September 2007 the votes were as follows:

Affirmative votes – 11: Alonso-Zarazaga, Bouchet, Halliday, Kottelat, Lim, Mahnert, Mawatari, Ng, Papp, Rosenberg and Zhang.

Negative votes – 13: Bogutskaya, Brothers, Fautin, Grygier, Kerzhner, Krell, Kullander, Lamas, Pape, Patterson, Pyle, Štys and van Tol.

Minelli was on leave of absence.

Original references

The following are the original reference to the names placed on an Official List and Official Index by the ruling given in the present Opinion:

panamansis, *Hyloxalus*, Dunn, 1933, *Occasional Papers of the Boston Society of Natural History*, **8**: 69.

panamensis, *Hyloxalus*, Dunn, 1940, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **92**: 109.

OPINION 2196 (Case 3557)

***Calamaria* H. Boie in F. Boie, 1827 (Reptilia, Serpentes): usage conserved by designation of *C. linnaei* H. Boie in F. Boie, 1827 as the type species**

Abstract. The Commission has ruled that the current usage of the generic name *Calamaria* H. Boie in F. Boie, 1827 for a genus of Asian colubrid snakes is conserved by setting aside all previous fixations of type species and designating *Calamaria linnaei* H. Boie in F. Boie, 1827 as the type species.

Keywords. Nomenclature; taxonomy; Reptilia; Serpentes; *Calamaria*; *Calamaria linnaei*; snakes; Asia.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) all usages of the name *Calamaria* prior to that by H. Boie in F. Boie (1827) are unavailable;
 - (b) the incorrect reference to *Calamaria* in Opinion 92 is cancelled;
 - (c) the nominal species *Calamaria linnaei* (misidentified as *Coluber calamarius*) shall not be treated as a replacement name but as a new available name published by H. Boie in F. Boie, 1827 in conjunction with the diagnosis of the genus and that its holotype is RMNH 27 in the Nationaal Natuurhistorisch Museum, Leiden, collected in Java, 1820–1823, by H. Kuhl and J.C. van Hasselt;
 - (d) all previous type species fixations for the nominal genus *Calamaria* H. Boie in F. Boie, 1827 are set aside and *Calamaria linnaei* H. Boie in F. Boie, 1827 is designated as the type species.
- (2) The name *Calamaria* H. Boie in F. Boie, 1827 (gender: feminine), type species by designation in (1)(d) above *Calamaria linnaei* H. Boie in F. Boie, 1827, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *linnaei* H. Boie in F. Boie, 1827, as published in the binomen *Calamaria linnaei* (specific name of the type species of the genus *Calamaria* H. Boie in F. Boie, 1827), with the endorsement that it shall not be treated as a replacement name for *Coluber calamarius* Linnaeus, 1758, but as a new available name published by H. Boie in F. Boie, 1827 in conjunction with the diagnosis of the genus and that its holotype is RMNH 27 collected in Java, 1820–1823 by H. Kuhl and J.C. van Hasselt, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3357

An application to conserve the current usage of the generic name *Calamaria* H. Boie in F. Boie, 1827 for a genus of Asian colubrid snakes by designating *Calamaria linnaei* H. Boie in F. Boie, 1827 as its type species was received from Jay M. Savage (*San Diego State University, San Diego, CA, U.S.A.*) and Charles W. Myers

(*American Museum of Natural History, New York, NY, U.S.A.*). After correspondence the case was published in BZN **63**: 267–271 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN **63**: 270. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 21: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kerzhner, Kottelat, Krell, Kullander, Lamas, Mahnert, Mawatari, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative vote – 1: Lim

Minelli, Ng and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Calamaria H. Boie in F. Boie, 1827, *Isis von Oken*, **20**(6): column 519.

linnaei, *Calamaria*, H. Boie in F. Boie, 1827, *Isis von Oken*, **20**(6): column 539.

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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30 June 2008

Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 65, part 1, 31 March 2008) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3453: *Thecla dumetorum* Boisduval, 1852 (Insecta, Lepidoptera): proposed suppression. J.A. Scott.

CASE 3454: *Cercatetus nanus* Desmarest, 1817 (Marsupialia, BURRAMYIDAE): proposed revision of authorship. J.M. Harris.

CASE 3455: *Pseudobagrus* Bleeker, 1859 (Osteichthyes, BAGRIDAE): proposed conservation over *Tachysurus* La Cepède, 1803. J.A. López, E. Zhang & J.-L. Cheng.

CASE 3456: *Nerita helicina* Brocchi, 1814 (Mollusca, Gastropoda, NATICIDAE): proposed conservation of usage by designation of a neotype. L. Pedriali & E. Robba.

CASE 3457: *Neofelis* Gray, 1867 (Mammalia, PANTHERIDAE): re-evaluation of specific names. P. Christiansen.

CASE 3458: *Salazaria* D'Abrera & Bálint, 2001 (Insecta, Lepidoptera): proposed precedence over *Annamaria* D'Abrera & Bálint, 2001 and *Chopinina* D'Abrera, 2001. R.K. Robbins.

CASE 3460: *Liburnia* Stål, 1866 (Insecta, Hemiptera): proposed fixation of the type species as *Embolophora monoceros* Stål, 1855. C.R. Bartlett.

CASE 3461: ANCYLINI Michener, 1944 (Insecta, Hymenoptera): proposed emendation of spelling to remove homonymy. M.S. Engel, J.S. Ascher & D.A. Yanega.

CASE 3462: *Tellina papyracea* Poli, 1791 (Mollusca, Bivalvia): proposed conservation. A.F. Sartori.

CASE 3463: *Testudo gigantea* Schweigger, 1812 (Reptilia, Testudines): proposed conservation of usage. J. Frazier.

CASE 3464: PERIOPHTHALMIDAE Gill, 1863 (Osteichthyes, Gobioidae): proposed conservation by suppression of OXUDERCIDAE Günther, 1861. R.E. Watson.

CASE 3465: *Libellula isoceles* Müller, 1767 (currently *Aeshna isosceles*; Odonata, Anisoptera, AESHNIDAE): proposed emendation of spelling to *Libellula isosceles*. P.J. Mill, S. Brooks, N. Moore, & P. Taylor.

CASE 3466: *Pachyramphus* G.R. Gray, 1839 (Aves, Passeriformes): proposed conservation of usage. S.M.S. Gregory.

Official Lists and Indexes of Names in Zoology

Between its foundation in 1895 and December 2007 the Commission has ruled on over 13,200 family-group, generic and specific animal names and placed these on the Official Lists of Names in Zoology or the Official Indexes of Rejected and Invalid Names in Zoology. Details of all these names are given on '<http://www.iczn.org/lists&indexes.pdf>'. Names ruled on before 1986 are also available in the hardback book *Official Lists and Indexes of Names in Zoology* (1987) and those between 1986 and 2000 in a Supplement (2001). Both these books are still available and may be ordered from 'iczn@nhm.ac.uk'.

Chairman of the Trust – Changes at the helm

Lord Cranbrook has served with dedication as the Chairman of the International Trust for Zoological Nomenclature from 2001 to 2008, stepping down at the AGM in May. This service is in addition to his tenure as a Trustee since 1983, and running the first appeal in 1980, thus he has given over a quarter century of commitment and activity on behalf of ITZN. Lord Cranbrook will continue to serve as a Trustee. Dr Michael Dixon is the new Chairman of ITZN, bringing to the job his past experience as Director General of the Zoological Society of London and current experience as Director of the Natural History Museum.

Lipke Bijdeley Holthuis – Commissioner 1953–1996, crustacean taxonomist and Naturalis curator

Dr Lipke Bijdeley Holthuis, a member of the International Commission on Zoological Nomenclature between 1953 and 1996, died in Leiden, Netherlands on 7 March 2008. He worked mostly on decapod crustaceans during his long and distinguished career, and was a foremost carcinologist.

Lipke was born in Probolinggo, Eastern Java, Netherlands East Indies (now Indonesia) on 21 April 1921, where his father was teacher and director of the training school for native officials; his mother was a schoolteacher before her marriage. He maintained his interest and love for the tremendous biodiversity of Southeast Asia even as he grew up and studied in the Netherlands. He was a member of the Netherlands Youth Organization for the Study of Nature in The Hague in the 1930s, where Niko Tinbergen was very influential. This doubtless sowed the seeds for his life-long interest in birds and opened his eyes to the fascinating behaviour of his beloved decapods.

Lipke read biology at the Rijksuniversiteit Leiden (1937–1941), where he obtained his Ph.D. degree in 1946 with his thesis ‘The Stenopodidae, Nephropsidae, Scyllaridae and Palinuridae. The Decapoda Macrura of the Snellius Expedition I’, published in 1947 in *Temminckia*. He started work at the Rijksmuseum van Natuurlijke Historie, now the National Museum of Natural History – Naturalis, in 1941, initially as a honorary assistant curator, and becoming curator of crustaceans from 1947. He was responsible for the Division of Crustacea between 1950 and 1 May 1986, the official day of his retirement – an astonishing 45 years of continuous service. Even during the war, Lipke continued his work, hiding in the museum throughout the Second World War. Many of his publications were landmark studies of important groups, including monographs on lobsters, prawns and crayfishes. Papers he wrote in the 1950s are still regularly cited, and, despite their age, are invaluable for any student of carcinology.

Retirement in 1986 did not stop Lipke’s research activity. He continued on for several more years but by the early 1990s he decided that he should wind down and not start any new projects. He was a man acutely aware of his mortality and immensely practical. He felt that many carcinologists left a great deal of “unfinished business” behind when they died, and subsequent scholars were then saddled with the onerous task of sorting things out. This, he felt, was not a “gentlemanly” thing to do. He decided merely to finish all he started before he retired and only continue with work on the history of carcinology and nomenclature. He had two “great unfinished tasks” at the point of his retirement – a revision of the scyllarid lobsters and a completion of the study of his beloved New Guinean crayfish. The first he accomplished with a wonderful tome on scyllarids in 2002, published in the French journal *Zoosystema*. He could not finish the crayfish. His eventual bibliography consists of more than 600 titles and more than 10,000 pages.

He was passionate about the history of science and the intricacies of the past, which made him a superlative nomenclaturist. For many taxonomists, it is a veritable nightmare trying to decipher and untangle the historical complexities and confusions associated with old names. Species that we named long ago have many names, written in many languages and styles, in many different old journals which are not

easily accessible, and often in ways so obtuse and brief, that trying to make sense of it is daunting. Lipke genuinely enjoyed the challenge of such ‘nomenclatural nightmares’ and he invariably solved every problem by using his love of history with a legalistic interpretation of the zoological code and practicality. In his long career, his nomenclatural skills have been utilised not only to solve numerous crustacean problems, but also cases in mammals, birds and fish. He actively participated in the preparation of many applications to the Commission, and was responsible for stabilising the nomenclature (and taxonomy) of many important genera and species of decapod crustaceans. This was a duty he performed even after he formally retired from the museum in 1986. His long service in the Zoological Commission is testament to his dedication – he was a Commissioner for 43 years. In addition, Lipke was its Vice President from 1964 to 1977, Acting President from 1965 to 1972, and Secretary General from 1985 to 1989. He was a very active commissioner with more than 150 contributions to the Bulletin of Zoological Nomenclature, the first in 1951, and the last in 2007. He was highly respected by Commissioners and peers alike for his pragmatical attitude to nomenclature and what it must do. His perception of nomenclature was always that it was a service science – and that commissioners should remain impartial and neutral. The facts should always speak for themselves and decisions made for the greater good, regardless of personal egos or self-interests. Lipke was a conservative – but a very practical one. He was perhaps the first “true-blue” nomenclature lawyer.

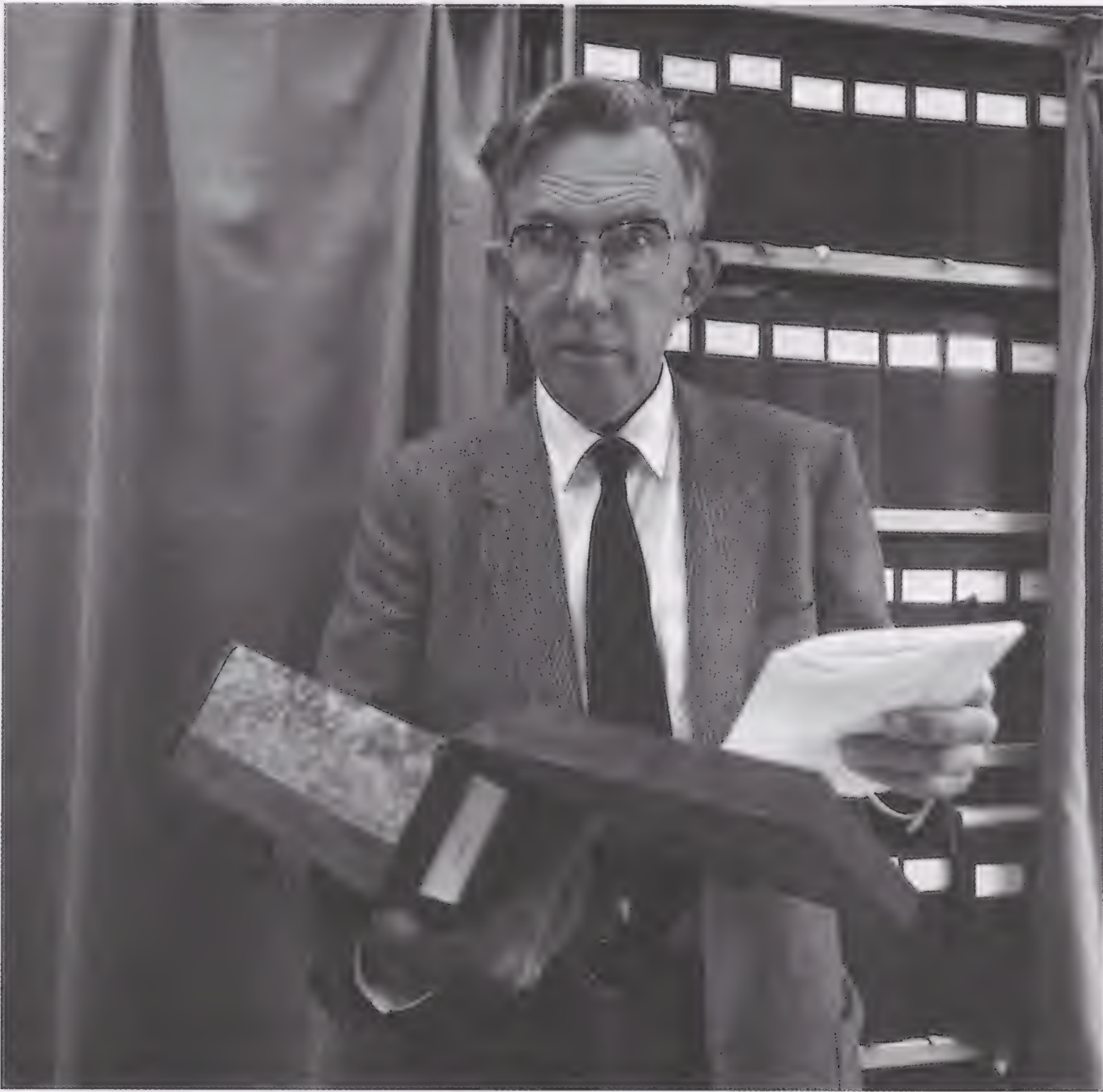
Lipke was deeply interested in the people who made up his scientific landscape. He published a history of the Leiden museum, ‘1820–1958. *Rijksmuseum van Natuurlijke Historie*’, including concise biographies with portraits of all staff members of the museum (available in Dutch at www.repository.naturalis.nl). He also kept records of the lives and research activities of past carcinologists, and had detailed files on many of them. Lipke never married, his entire world revolved around taxonomy and nomenclature. And he never had any regrets – he was proud to have given his life to science. When the museum was still at the Raamsteeg, before moving to its new building, staff members had their own keys to open the building anytime they wished – and Lipke usually did so at about 5:00 a.m. every day except Sundays!

Many colleagues all over the world sought his advice, both in taxonomic and nomenclatural matters, and Lipke regularly received specimens for identification from all parts of the world. He dealt with all these tasks meticulously and promptly – clinically answering questions and offering practical solutions. He earned tremendous respect and appreciation for his unselfish readiness to help colleagues all over the world, especially from those without access to literature, not familiar with nomenclature and taxonomy, or who were confounded by the complexities of Latin. His generosity often went even further – he has helped many colleagues from developing countries write, edit and finish their papers, and even facilitated their publication on many occasions. He believed strongly that this was necessary as science had to grow around the world. He was a supreme teacher – always encouraging and positive to scholars young and old – the only prerequisite being that they must be truly interested.

Lipke will be remembered at his museum as a sympathetic colleague, among carcinologists as a master and selfless teacher, and in the nomenclatural community as a towering figure. He epitomises what all scientists strive to be – a

gentleman scholar. His influence on carcinologists around the world has been immense – hundreds of researchers today from New and Old Worlds, North and South have been helped, and influenced by his activities. Through them, Lipke's influence will live on.

Jan van Tol & Peter K.L. Ng



L.B. Holthius
1921–2008

Frederick M. Bayer – Commissioner 1972–1995, octocoral taxonomist and Smithsonian curator

Frederick ‘Ted’ M. Bayer, 85, a Commissioner for 23 years (1972–1995) and former Smithsonian curator, died after a long illness on October 2, 2007 in Washington, D.C. His contribution to the Commission’s work was steadfast and conscientious, voting on over 800 nomenclatural opinions in his long service.

Dr Bayer was a productive and influential taxonomist, having the honour of many species of both gastropods and octocorals named after him. Although there are too many to accurately list here, highlights include four genera named in his honor: *Bayerxenia* Alderslade, 2001; *Bayericerithium* Petuch, 2001; *Bayerotrochus* Harasewych, 2002, and *Bayergorgia* Williams & López-González, 2005. When asked his opinion about the last paper, he responded that it was a fine paper, but a terrible generic name. Several dozen species from many different groups of animals have been named in his honor, including the hydroid *Hydractinia bayeri* Hirohito, 1984, described by his colleague, the Emperor of Japan.

Dr Bayer published over 130 papers and books on the taxonomy and natural history of soft corals (i.e. octocorals: sea fans and sea whips), describing over 170 new species, 40 genera, and even three new families. He was long acknowledged as the doyen of soft coral research, attracting visitors and collections to the Smithsonian from all parts of the world.

He was an outstanding bio-illustrator, both in black and white line drawings (the stipple technique) as well as color paintings. He painted a series of fourteen beautiful, scientifically accurate underwater scenes that were used for a set of postage stamps for Haiti in 1973. After the scanning electron microscope was invented, he employed it assiduously to examine the microscopic anatomy of the octocoral skeleton, ultimately amassing a collection of over 40,000 images, many taken in stereo view.

Dr Bayer was born in Asbury Park, New Jersey on Halloween night, 1921, but grew up in southern Florida, where he became an amateur naturalist at a young age, his early passion being the collection of seashells. His undergraduate education was interrupted by Second World War, during which time he served as a photographic

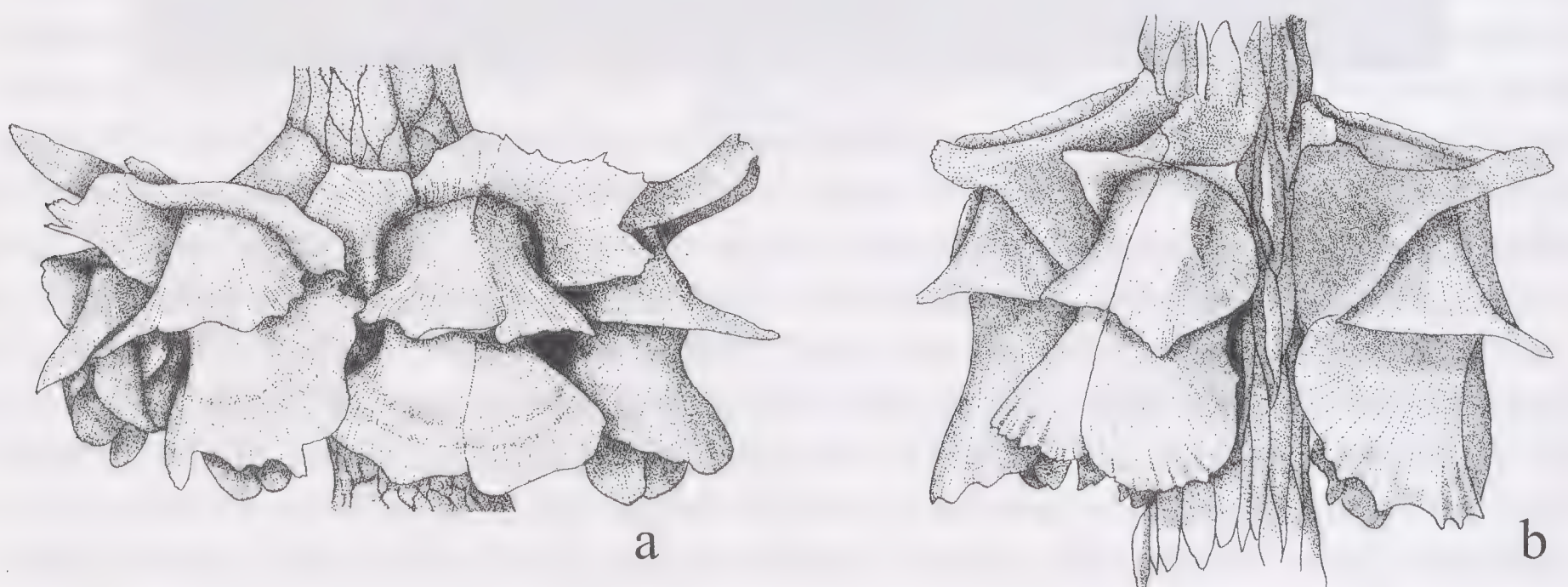


Fig. 1. Examples of illustrations of octocorals by F.M. Bayer. Polyps of *Narella* spp.: a, *N. leilae* Bayer, $\times 10$; b, *N. howesi* (Nutting), $\times 10$ (Copyright © 2007 Biological Society of Washington. From Proceedings of the Biological Society of Washington, by Locke et al. Reprinted by permission granted by Allen Press Publishing Services).

technician in the Army Air Corps (36th Photo Reconnaissance) from December 1942 to December 1945. In this capacity he traveled to New Guinea, the Philippines and Okinawa, in his spare time making collections and drawings of shells, fish, and butterflies. He eventually received his BS from the University of Miami, and his MS and PhD degrees from George Washington University in 1954 and 1958, respectively.

He was hired as a Smithsonian curator at the National Museum of Natural History in 1947. Almost immediately he was sent to Bikini Atoll to survey the marine fauna just two years after the nuclear testing at that island. He also spent many months of field work in Micronesia at Ifaluk (1953) and Palau (1955). Bayer left the Smithsonian in 1961 to become a Professor at the School of Marine Science, University of Miami. During that time he participated in numerous deep-sea collecting expeditions in the Caribbean and off western Africa, as well as mentoring over a dozen graduate students in the classification of exotic marine invertebrates. He returned to the Department of Invertebrate Zoology, Smithsonian Institution in 1975 where he continued his interrupted curatorial career for another 21 years until he retired in 1996. He continued to work and publish papers at the Museum as a Curator Emeritus until 2007 and was a member of the Washington Academy of Sciences. Although an expert on corals, Ted Bayer was a broadly based naturalist, perhaps one of the most knowledgeable deep-sea biologists in the world.

Stephen D. Cairns

Submission by the International Trust for Zoological Nomenclature to the *Inquiry into Systematics and Taxonomy* by the House of Lords Select Committee on Science and Technology

Introduction

In January 2008 the U.K. House of Lords Science and Technology Committee, chaired by Lord Sutherland of Houndwood, announced a follow-up inquiry on systematic biology research and taxonomy. The stated objective was to provide an assessment on the state of the field five years after the Committee's last report (*'What on earth? The threat to the science underpinning conservation'*) in the context of new scientific, technological and policy developments. The 2003 House of Lords report, while focusing on the state of UK systematics and taxonomy, was widely read around the world, with influence in international scientific circles. Further information on the Committee's activities and past reports can be found on <http://www.parliament.uk/hlscience/>. Evidence was invited for the 2008 report, accompanied by a set of questions to which the Committee sought responses.

Given the relevance of the topic to the role of ICZN, it was decided that the Trust should submit a written paper to the Select Committee. The following text was prepared by Lord Cranbrook (Chairman, ITZN), Ellinor Michel (Executive Secretary, ICZN) and Simon Coppard (Development Officer, ICZN).

Summary

The International Trust for Zoological Nomenclature (ITZN) is the UK-based charity dedicated to the support of the International Commission on Zoological

Nomenclature (ICZN). ICZN was founded in 1895, at a period of confusing instability in the scientific naming of animals, and continues to be the internationally recognised regulator of zoological nomenclature. ICZN is now poised to provide its essential services in a manner that is dependable, durable, and freely accessible to the world-wide community of scientists and other users of its products through a web-based development known as ZooBank.

It is essential for the scientific community that ICZN is positioned to provide this complete service before the end of the first decade of this new century. In the context of the service provided by ICZN to the UK and international community of systematic biologists, taxonomists and the many other users of animal names, it is anomalous, if not incredible, that the implementation of ZooBank should not be supported by UK national or international grant-giving bodies. A serious re-appraisal of the funding arrangements for ICZN is overdue. A regulatory body of this importance to science should not be funded solely through the voluntary efforts of members of a small UK-registered charity.

Background

The International Trust for Zoological Nomenclature (ITZN or 'the Trust') is the UK-based charity dedicated solely to the funding of the International Commission on Zoological Nomenclature (ICZN or 'the Commission'). The Commission was founded in 1895 by the International Congress of Zoology, out of earlier organisations that included such notable biologists as Charles Darwin and Richard Owen. The aim of the Commission was then, and is still, to bring stability to zoological nomenclature.

Stable nomenclature is at the heart of rigorous communication about biodiversity. Species names provide the 'anchor' to which all taxonomic, ecological, molecular and conservation data are attached. Legal protection and policy are also linked with names, not actual (mortal) animals, on the assumption that the groups indicated by the names are consistent through time and among places. Scientific discussion relies on names having unequivocal, context-independent meanings. Medical and veterinary implementation requires indisputable identifications. Although discovery and delineation of species may receive the emphasis of high-profile press coverage, all taxonomic practice is crucially dependent on a stable nomenclature to provide a steady platform on which to build. ICZN is the single professional organization devoted to ensuring that this work happens in a globally consistent way providing continuity both for new species discoveries and for the correction of errors in past works.

ICZN provides and regulates a uniform system of zoological nomenclature ensuring that every animal has a unique and universally accepted scientific name. Currently the Commission is composed of 27 elected Commissioners from 19 countries around the world. These are leading zoologists who collectively represent all the major fields of zoology. In 2004 ICZN began a restructuring and modernisation programme to match the expanding capacity of information and communication technology (ICT) to underpin its service to the international scientific community.

ZooBank

No analyses of patterns of biodiversity are immune to problems of unreliable nomenclature. Unfortunately, rates of error in linking names with their intended

objects are very high due to the non-persistent nature of web pages (URLs regularly change, resulting in 'link-rot'). Access to definitive nomenclatural sources remains difficult and is a part of biodiversity work that is often skimmed over by researchers. Error rates can then perpetuate throughout the analyses, sometimes multiplicatively, providing further examples of the adage 'garbage in, garbage out'. In order to tackle this problem ICZN is developing a web-based nomenclatural tool, known as ZooBank, that will persistently maintain and disseminate nomenclaturally verified data for animal names using globally unique identifiers (GUIDs) for each animal name. This will then act as the source for 'clean' data for the many other downstream biodiversity tools such as the large-scale taxonomic initiatives of EDIT, Tree of Life, Encyclopedia of Life (EOL), etc.

This initiative, to provide a universal, open-access, register of all species names, freely accessible via the World-Wide Web, was first announced in the journal *Nature* in September 2005. Favourable comments followed in both the popular and more specialised science press, and the concept has since received the universal support of scientists and policy makers. ICZN now has 117 Scientific Affiliates who have signed a Memorandum of Cooperation supporting the aims and objectives of ICZN, including ZooBank (Annex). A preliminary version of ZooBank, containing 1.6 million scientific names, was launched in August 2006 (www.zoobank.org) with the registration interface still under development. The ultimate achievement of ZooBank will mark the attainment of ICZN's major objective, to provide enduring stability in nomenclature. It will be of huge significance to taxonomists, present and future, and the sciences dependent on their work, but will not eliminate the permanent need for a regulatory commission (ICZN) to oversee the process, with powers to resolve the more complex problems.

The Trust's prospects 2008–2010

Financial stability of the ICZN Secretariat, for the time being, is guaranteed by modest reserves held by the Trust, annual income from sales of the *Bulletin of Zoological Nomenclature* and of any future editions of the *Code*. Accommodation for the ICZN Secretariat, generously provided by the Natural History Museum, London, is not under threat. Under existing rules, however, ICZN is ineligible for UK Research Council funding, and the Trust receives no institutional support, UK government or international funding (e.g. UNESCO). The development of ZooBank, arguably ICZN's most important current activity, therefore presents a severe challenge to the Trust as the funding organisation. Given the importance of ZooBank to the huge national and international community of taxonomists, systematic biologists and the many other users of animal names, now and into the future, it is anomalous, if not incredible, that the funding for this revolution in the working methods of ICZN should be wholly dependent on the voluntary efforts of the members of a small UK-registered charity.

Initial costs will be incurred for retrospective registration of animal names, i.e., checking data against original publications going back to 1758, a task that can best be undertaken by experts in each specialised area of taxonomy. When the system is established ICZN will retain its essential regulatory role, ensuring a stable and 'clean' nomenclature that is an absolute necessity for all biodiversity work. Given that there are at least 1.6 million described animal species, and perhaps five to six times as many

yet to be named, the ZooBank initiative ranks as a large-scale priority for biodiversity classification and management, ranking with other ‘big’ science initiatives in medicine or astronomy.

At this stage, ITZN predicts that the cost of implementing ZooBank will be £1M. We have conditionally been pledged a quarter of this by the Gatsby Charitable Trust. ITZN hopes that, if the UK scientific funding bodies take a lead, the international community will respond in order to achieve the implementation of ZooBank within the shortest possible time.

The Committee’s Questions

What is the state of systematics research and taxonomy in the UK? What are the current research priorities? What are the barriers, if any, to delivering these priorities?

Stable scientific names underpin systematics research and taxonomic classifications. Since 1895, this stability has been provided in zoology and all related fields of endeavour (including agricultural, veterinary and medical research, parasitology, the study of vectors of human, animal and plant diseases, etc.) by the *International Commission on Zoological Nomenclature* (ICZN, or the ‘Commission’). The Commission consists of 27 eminent zoologists from 19 countries, governed by a president and council, with a secretariat staff operating from an office in the Natural History Museum, London (NHM). The ICZN Secretariat oversees the periodic publication of the updated *Code of Zoological Nomenclature* (the ‘Code’), which acts as the global foundation for the regulation of animal names.

Nomenclatural problems arising from systematic or taxonomic research that require active intervention to arrive at a stable solution (via the Commission’s plenary power) are put to the ICZN by the scientists involved. These applications are published as technical papers and disseminated as widely as possible for professional comment before the Commissioners are individually polled for their collective decision. The Cases, Comments and definitive, binding Opinions reached by this process are published in the *Bulletin of Zoological Nomenclature*, with abstracts of Cases, Opinions and Comments (published in full) freely available online via the ICZN website (www.iczn.org). The current priority of ICZN is to bring animal nomenclature into the 21st century by adopting IT/bioinformatics to the fullest extent, ultimately providing the Commission’s regulatory services through a web-based system, freely accessible to those who use scientific animal names. This hugely important project has been titled *ZooBank*. ZooBank is recognized as the ultimate source for robust and ‘clean’ nomenclatural data both for established animal names and for the registration of newly discovered species, and is rapidly gaining the support of the broad scientific community with over 100 scientific institutions and societies having signed up to this initiative. Large scale biodiversity informatics projects such as the Encyclopedia of Life (EOL) lack the capacity and authority to ensure stable nomenclature, with ZooBank being ‘a vital partner’ to their success (Jesse Ausubel, Chair of EOL Steering Committee). The support for ZooBank extends across the spectrum of taxonomy end-users, with comments such as the following not uncommon:

‘This accomplishment is a first major step towards completing the Linnaean enterprise, which is essential for mapping Earth’s still poorly known fauna. With the firm foundation ZooBank aims to provide, the rest of biology will be immensely

strengthened, and humanity correspondingly benefited' (Professor Edward O. Wilson, Harvard University, leading authority on biodiversity);

'This is a hugely significant step for animal conservation. With ZooBank in place we will all have access to a single reference list of animal names, and so discussions about priority species and habitats can proceed with greater clarity and speed.' (Professor Georgina Mace OBE FRS, Imperial College, London, leading authority on biodiversity).

What role do systematics and taxonomy play in research into biodiversity conservation, ecosystem services and climate change? Is that role recognised in the funding process?

Biotic response to climate change will determine whether there is disruption of ecosystems and loss of their services from invasive and introduced organisms. Accurate taxonomy is key in all aspects of modelling, monitoring, and assessment of biotic response to past climate change, however this is underpinned by sound, universal and well-regulated nomenclature. Similarly, conservation efforts are meaningless without a stable nomenclature that serves the needs of legal protection and policy formulation, both of which legislate on *names*, not individual entities. Nomenclature is integral to all biodiversity and systematic research. However, the ICZN is not a basic research organization, thus its work is not eligible for research council funding. The ICZN is financially supported by a UK-registered charity, the International Trust for Zoological Nomenclature (ITZN or the 'Trust'). The Trust receives no institutional, governmental or international funding and is run by a volunteer board. It is absurd that such an important service to science should be dependent on charitable donations from private sources.

Does the way in which systematics research is organised, co-ordinated and funded best meet the needs of the user community?

ICZN provides a vital service to the community of users of animal names, as is evidenced by global attention to our mission. The development of ZooBank will be the definitive source for nomenclatural information for animals, and thus will increase good taxonomic practice throughout the research community. It will also be poised to ensure validity of the 16,000 to 18,000 new names for animals described each year (many more than among plants or bacteria). Thus ZooBank, and the work of the ICZN, provide both an authority and a hub for maintaining and disseminating high quality data. As a critical link in high standard taxonomic practice that both organizes and coordinates information, it is short-sighted that the ICZN and ZooBank are under-funded and dependent on private charitable and trust contributions.

What is the role of the major museums and collections in taxonomy research? How are taxonomic collections curated and funded?

Zoological nomenclature is founded on the identification and safe custody of *type specimens* which (under the *Code*) should be deposited at a museum or institute of recognised standing. There is thus a fundamental relationship between a stable zoological nomenclature and the responsible curation of specimens at these institutions. The work of the ICZN adds value to collections; the significance of type

collections is dependent on the legitimacy conferred by nomenclatural acts. The ICZN secretariat also relies heavily on access to the library at the Natural History Museum, South Kensington, which is the best collection of natural history publications in the world. This regular, practical use of the library increases its effectiveness on a global scale. Thus our location within the museum is key to our effective functioning and adds value to the core functions of the museum as an archive of type specimens and literature. This key role deserves governmental recognition and funding.

What progress has been made in developing web based taxonomy? What can be done to ensure web based taxonomy is reliable and of high quality?

ICZN and ZooBank are at the forefront of making web-taxonomy accessible. The deployment of ZooBank will provide a web-based regulatory system for a stable, high quality zoological nomenclature, underpinning all animal sciences. The essential software is already developed, a demonstration data set of 1.6 million names has been accessed from Zoological Record, and the first newly described species have been registered. We are now in need of specific funds for retrospective registration of unverified names on a large scale to ensure completeness. This project will require an expansion phase to be effective, but in the long term will be self-supporting as the scientific community self-registers names (in the manner of GenBank). In concert with development of ZooBank, the ICZN will make facilitation of reliable web-based taxonomy and the archiving of new species descriptions central in developing the next edition of the *Code* (projected publication time in 2010). Funds are now required for the implementation of this essential project.

Does the UK have adequate numbers of trained taxonomists? What is the state of training and education in systematics and taxonomy?

ICZN is an international body, serving the international community of scientists using animal names, but is based in the UK due to the quality of the collections, library and history of work on taxonomy. The Commission's services are constantly in demand by this international community and, through its regulatory role, ICZN adds value to the UK's taxonomic resources. As there are severe shortages of taxonomic specialists, a fully-functioning nomenclatural regulatory body must work through an active networking process on a global scale. Current training in biology often lacks the basics of nomenclatural practice. Given appropriate resources, the ICZN is prepared to contribute to systematics and Code-related nomenclatural training programmes at a number of levels, from introductory university courses to postgrad speciality courses. We also see that eventually part of our mission is to provide guidance for the active taxonomic community, to improve its understanding of nomenclatural practice through ZooBank. In an idealized sense, once ZooBank is fully established it will guarantee improved nomenclatural practice through the Code compliant registration of all new species and overall, decrease the traditional work of the regulatory body. We recognize that the role of the ICZN will need to evolve as genetic species descriptions and taxonomic practices adapt to meet the biodiversity crisis. We are uniquely poised to meet these demands and expect that the role and function of ICZN will increase exponentially in coming years.

Case 3435***Bagauda* Bergroth, 1903 (Insecta, Heteroptera): proposed precedence over *Pleias* Kirkaldy, 1901**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the usage of the name *Bagauda* Bergroth, 1903 (type species *Bagauda avidus* Bergroth, 1903) for a genus of thread-legged assassin bug from Afrotropical and Oriental Regions, by giving it precedence over the senior generic name *Pleias* Kirkaldy, 1901 (type species *Pleias ritsemae* Kirkaldy, 1901).

Keywords. Nomenclature; taxonomy; *Bagauda*; *Pleias*; *Bagauda avidus*; *Pleias ritsemae*; thread-legged assassin bug; Afrotropical and Oriental Regions.

1. Kirkaldy (1901, p. 56) described a new thread-legged assassin bug genus and species, *Pleias ritsemae* (Insecta, Heteroptera, REDUVIIDAE, EMESINAE) from Sumatra. Neither this genus nor species have ever been recorded again and there are no later works presenting original data about it.

2. Based only on its original description, Bergroth (1906, p. 311) discussed the systematic position of *Pleias* and pointed out that it might be synonymous with *Luteva* Dohrn, 1860 (currently a junior synonym of *Ploiaria* Scopoli, 1786). However, important points of Bergroth's opinion were based on presumed errors in Kirkaldy's original description. In his world monograph on the subfamily EMESINAE, Wygodzinsky (1966, p. 219), also unable to examine the holotype, regarded *Pleias* Kirkaldy, 1901 as a genus incertae sedis. Following Wygodzinsky, the recent taxonomic catalogue of Maldonado Capriles (1990, p. 119) also treated *Pleias* as of uncertain identity.

3. Bergroth (1903, p. 12) described a new genus and species, *Bagauda avidus*, from India. In the past 50 years, several taxonomic papers dealing with *Bagauda* have been published (Wygodzinsky, 1958a, 1958b, 1966; Villiers, 1962, 1970, 1972, 1982; Dispos, 1965, 1970; Ribes, 1987; Rédei, 2005), and this generic name has also been used in several other works in faunistic, ecological, ethological etc. contexts (Gillet, 1957; Villiers, 1961, 1966, 1973; Parker, 1965, 1969; Gagné & Howarth, 1974; Louis, 1974; Putshkov, 1987; Ravichandran & Livingstone, 1989; Livingstone & Ravichandran, 1991; Ambrose, 1999, 2006; Dittmar et al., 2005; Forero, 2007) and listed in a taxonomic catalogue (Maldonado Capriles, 1990; Kerzhner, 1993). Currently this well-known genus contains 18 species widely distributed in the Afrotropical and Oriental Regions (cf. Ribes, 1987; Maldonado Capriles, 1990; Rédei, 2005).

4. Recent examination of the holotype of *Pleias ritsemae*, deposited in the Nationaal Natuurhistorisch Museum (Naturalis), Leiden, lead the author to the

conclusion that the species is congeneric with *Bagauda avidus*, the type species of *Bagauda*, as well as with the other species currently in that genus (Rédei, 2007). Hence, *Bagauda* Bergroth, 1903 is a junior subjective synonym of *Pleias* Kirkaldy, 1901.

5. In the author's opinion, adherence to the Principle of Priority in this case is undesirable and would threaten stability. Reversion to the senior name *Pleias* would require all 18 nominal species currently included in *Bagauda* to be transferred to the nominal genus *Pleias*.

The number, distribution, and authorship of the works using the generic name *Bagauda* meet the conditions of Article 23.9.1.2. Because the condition of Article 23.9.1.1 is not met, the 'automatic' conservation of *Bagauda* under Article 23.9.2 is not possible. Therefore, the case is brought to the Commission under the provisions of Article 23.9.3.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the generic name *Bagauda* Bergroth, 1903 precedence over the name *Pleias* Kirkaldy, 1901 whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Bagauda* Bergroth, 1903 (gender: masculine), type species by monotypy *Bagauda avidus* Bergroth, 1903, with the endorsement that it is to be given precedence over the name *Pleias* Kirkaldy, 1901 whenever the two are considered to be synonyms;
 - (b) *Pleias* Kirkaldy, 1901 (gender: feminine), type species by monotypy *Pleias ritsemae* Kirkaldy, 1901, with the endorsement that it is not to be given precedence over the name *Bagauda* Bergroth, 1903 whenever the two are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *avidus* Bergroth, 1903, as published in the binomen *Bagauda avidus* (specific name of the type species of *Bagauda* Bergroth, 1903);
 - (b) *ritsemae* Kirkaldy, 1901, as published in the binomen *Pleias ritsemae*, (specific name of the type species of *Pleias* Kirkaldy, 1901).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3398**AULACOSCELINAE Chapuis, 1874 (Insecta, Coleoptera, ORSODACNIDAE or CHRYSOMELIDAE): proposed conservation**

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Abstract. The purpose of this application, under Article 29 of the Code, is to conserve the names AULACOSCELINI Chapuis, 1874 and AULACOSCELINAE Chapuis, 1874 first used by Monrós (1949 and 1953, respectively) for Aulacoscelites Chapuis, 1874 for a group of Coleoptera currently placed in the ORSODACNIDAE Thomson, 1859 (traditionally they have been placed in the CHRYSOMELIDAE Latreille, 1802). There are two spellings currently used for this group of beetles, AULACOSCELINAE and AULACOSCELIDINAE. Although AULACOSCELIDINAE appears to be grammatically correct, AULACOSCELINAE has been in prevailing usage for the last 55 years and was in sole use for 37 years, from 1953 to 1990. The fact that both spellings are currently in use is undesirable, promoting instability.

Keywords. Nomenclature; taxonomy; Coleoptera; AULACOSCELINAE; AULACOSCELIDINAE; *Aulacoscelis*; Neotropical; southern U.S.A.

1. Aulacoscelines are an intriguing group of primarily cycad-feeding chrysomeloid Coleoptera currently placed in the ORSODACNIDAE (e.g. Schmitt, 1996; Reid, 2000; Clark & Riley, 2002; Riley et al., 2003; Duckett et al., 2004). Chapuis (1874, p. 54), placed the genus *Aulacoscelis* Duponchel & Chevrolat, 1842 (type species *Aulacoscelis melanocera* Duponchel & Chevrolat, 1842 (p. 338)) in Groupe 8, Aulacoscelites, within the Famille des Phytophages, Section I Eupodes, Tribu I Sagrides. Chapuis' *Aulacoscelis* authorship attribution to 'Dej. Stål, Monogr. Chrysom. Am. 341' is in error (see Griffin, 1932; Barber & Bridwell, 1940; Madge, 1988; Pope, 1992; Riley et al. 2003, and Bousquet, 2004 for discussions on the dates and authorship of Dejean's taxa). *Aulacoscelis* Chevrolat in Dejean, 1836 (p. 395) (as it cited by Neave, 1939) is a nomen nudum because this generic name was published without description, definition or combination with any available specific name (see Riley et al., 2003, Furth to Santiago-Blay, personal communication). Apparently, Monrós's uses of AULACOSCELINI in 1949 (p. 545) and of AULACOSCELINAE in 1953 (p. 19) were emendations of Aulacoscelites to meet the requirements of the *Règles*, which states in Article 4 that the name of a family is formed by adding the ending -IDAE, the name of the subfamily by adding -INAE, to the stem of the name of its type genus' (International Commission on Zoological Nomenclature, 1905). The name AULACOSCELINAE has been used by most authors ever since. AULACOSCELINI and AULACOSCELINAE are elided forms, i.e. containing no 'id' between 'Aulacoscel' and the appropriate rank-specific ending. Since 1990 and particularly since the early 2000s, a

number of authors have named the subfamily whose type genus is *Aulacoscelis* Duponchel & Chevrolat, 1842, 'AULACOSCELIDINAE' (unelided, or containing 'ID'). Although both AULACOSCELINAE and AULACOSCELIDINAE are in use, for the sake of nomenclatural stability, only one of the two names should be used.

2. In Greek, the formation of genitive singular conforms to no general rule and has to be done on a case-by-case basis (Bock & Conger to Santiago-Blay, independent personal communications, December 2003). Most nouns, adjectives, and present active masculine and neuter participles which have 'os' or variations of same, such as 'eos', 'oos', in the genitive singular, are in the third declension.

3. From Duponchel & Chevrolat (1842, p. 338) we learn that the etymology of *Aulacoscelis* (Greek: αὐλαξ σκελῖς) is 'furrowed rib'. According to Liddell (1989), the etymology and applicable grammar are as follows. The word 'aulax' (αὐλαξ) is the phonetic transcription of the Greek nominative, and its gender is feminine. The genitive singular is 'aulakos', which makes this a third declension noun. The word 'aulax' means a furrow, i.e. the indentation a plow makes in the ground or a crease in the brow (Liddell, 1989), or 'sillon', in French. The word 'sxelis' (with a *ki* also found in the Greek spelled with *kappa*, 'skelis') is a feminine nominative as well. Its genitive singular is 'sxelidos' (or 'skelidos', stem is *skelid*), again a third declension ending. According to Liddell (1989), that word mostly appears in the plural, 'sxelides', since it means 'ribs of beef' (Liddell, 1989). In Werner (1972) the Greek word *skelos* is given as 'tò skel-os', indicating that the stem is 'skel-' (Schmitt to Santiago-Blay, April 2008, personal communication). Gemminger & Harold (1874) incorrectly gave the etymology of *Aulacoscelis* as 'sulcus' and 'femur' for 'aulas' and 'skelis', respectively.

4. The stem of a name is usually determined by the author who first coins the family-group name. Chapuis's (1874, p. 30) nomenclatural system appears to have consisted of identifying what he considered to be the 'stem' (e.g. 'Aulacoscel' for *Aulacoscelis*, 'Ametall' for *Ametalla*, etc.) and appending a suffix (e.g. 'ites') to the identified stem (e.g. Aulacoscelites, Ametallites, respectively, etc.).

5. The correct grammatical formation of the family-group name, whose type genus is *Aulacoscelis*, is as follows. This name is formed according to Article 29.2 of the Code by adding a suffix to the stem of the name of the type genus...[in the case of subfamilies, -INAE,], while the stem for the purpose of the Code is found by deleting the case ending of the appropriate genitive singular (Article 29.3 of the Code – Determination of stem in names of type genera). The genitive singular of the word 'Aulacoscelis' is 'Aulacoscelidos'. Deleting its case ending leaves the stem AULACOSCELID-. Then, adding the correct rank suffix, the subfamily name is 'AULACOSCELIDINAE' ('-INI' for tribes, 'IDAE' for family, and '-OIDEA' for superfamilies).

6. On the other hand, if it is assumed that the word intended by Duponchel & Chevrolat (1842) was 'skelos' (neuter), instead of the printed word 'skelid', then its genitive form is 'skeleos' (meaning 'the leg') (Lindell, 1989). The word 'skeleos' is neuter and third declension whose stem would be 'skele-'. The word 'skelos' appears to be unrelated to 'sx / kelid-', even though the nominatives look similar (Conger to Santiago-Blay, personal communication, December 2003). We would have to add the appropriate suffixes to the stem 'AULACOSCELE-' (note the terminal 'e' that would have to be added to all the names of taxa based on *Aulacoscelis* based on this hypothesis). However, this interpretation ignores Duponchel & Chevrolat's (1842) own printed words.

7. This nomenclatural problem could have been solved by straightforward application of Articles 23.9 and 29.5 of the Code (Reversal of precedence and Maintenance of current spellings). However, there are several perceived complications with the concept of ‘prevailing usage’. From 1953 when Monrós used the AULACOSCELINAE (emended from *Aulacoscelites* Chapuis, 1874) for the first time to the present ‘AULACOSCELINAE’ has been used by more authors and has appeared in more publications than AULACOSCELINIDAE (subsequent spelling used for the first time by Kuschel & May (1990). However, since 1995 to the present, there is almost a tie between the number of publications using AULACOSCELINAE and AULACOSCELIDINAE (Lawrence & Newton (1995) as well as Reid (1995, 2000) used AULACOSCELIDINAE). Furthermore, since the early 2000s, most published works use the name ‘AULACOSCELIDINAE’.

8. If the stem of a generic name found by deleting the case ending of the appropriate genitive singular ends in -id, those letters may be elided before adding the family-group suffixes. If, however, the unelided form is in prevailing usage, that spelling is to be maintained (Article 29.3.1.1 of the Code). ‘Prevailing usage’ is defined in the Code’s Glossary as the ‘substantial majority of the most recent authors concerned with the relevant taxon, irrespective of how long ago their work was published, that spelling is to be maintained, whether or not it is the original spelling’. Even if the family-group name was formed incorrectly, that spelling is to be maintained, if it is in prevailing usage (Article 29.5 of the Code – Maintenance of current spellings).

9. The earliest evidence I have been able to find for the use of the name AULACOSCELIDINAE is Kuschel & May (1990), who probably followed Article 29 (Family-group names) of the third edition of the Code (1985), although no statement of emendation was made. I have been unable to find earlier uses of ‘AULACOSCELIDINAE’, allegedly made by Lawrence in the 1970s. Using the name AULACOSCELIDINAE, Lawrence & Newton (1995) also gave no statement of emendation. Subsequently, Reid (1995, 2000), Schmitt (1996, 2000), Farrell (1998), Lingafelter & Konstantinov (1999), Evans & Bellamy (2000), Clark & Riley (2002), Riley et al. (2003), Duckett et al. (2004) and Suzuki (2005) have adopted this usage. As far as I can tell, the spelling ‘AULACOSCELIDINAE’ was never used in a publication before 1990. From 1990 until the early 2000’s, there are scattered records in the recent literature, but this, in my opinion, does not constitute ‘prevailing usage’, as defined by Article 29.3.1.1 of the Code. Reid (2000) realized the new nomenclatural situation and discussed this matter, but preferred to use ‘AULACOSCELIDINAE’.

12. In the case of the family-group name whose type genus is *Aulacoscelis*, the only thing that remains to be demonstrated is AULACOSCELINAE became used by a ‘substantial majority of the most recent authors concerned with the relevant taxon, regardless of how long ago their work was published, that spelling is to be maintained, whether or not it is the original spelling’. The spelling AULACOSCELINAE has been used by what I consider a ‘substantial majority’ of the authors I have checked. A sample of authors (and years of publications) is listed below, in chronological order: Monrós (1953, 1954, 1959), Jolivet (1959 – as a family – 1977; 1988a, b), Crowson (1967, 1981), Suzuki (1970, 1988; 1989; 1992; 1994a, b; 1996), Medvedev (1971, 1975), Wilcox (1975), Mann & Crowson (1981, 1983, 1996), Lawrence & Newton (1982), Seenó & Wilcox (1982), Arnett (1985, 2000), Brovdii

(1985), Petitpierre (1988), Petitpierre et al. (1988), Borrer et al. (1989), Lawson (1991), Jolivet & Hawkeswood (1995), Maes (1998), Santiago-Blay (2004a, b), Santiago-Blay & Virkki (1989), Crowson & Crowson (1996), Cox (1998), Suzuki & Tanaka (1998), Suzuki & Windsor (1998, as a tribe AULACOSCELINI, 1999), Cox & Windsor (1999a, b), and Windsor et al. (1999). The number of users of 'AULACOSCELINAE' outnumbers that of 'AULACOSCELIDINAE', regardless of the temporal bracket used to tally, except from the early 2000's to the present, when the reverse appears to be true.

14. While the name AULACOSCELIDINAE is grammatically correct, AULACOSCELINAE is in prevailing usage. However, from the early 2000's to the present the name AULACOSCELIDINAE has become more widely used, promoting instability. To summarize, while I believe the 'prevailing usage' argument strongly favours 'AULACOSCELINAE', the increasing use of AULACOSCELIDINAE suggests that without a Commission's action no stability can be achieved. It does not seem likely that the problem could be solved by simply continuing with the prevailing usage of AULACOSCELINAE because, in violation of the Code, precisely the opposite has happened, particularly in the last 5–8 years. Therefore, a ruling by the Commission is sought to conserve the name 'AULACOSCELINAE', for the subfamily thus far including the genera *Aulacoscelis* Duponchel and Chevrolat, 1842 and *Janbechynea* Monrós, 1953 (p. 21) that has been in sole use from 1953 to 1990 and is in prevailing use for the last 55 years.

15. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that for the purposes of Article 29 of the Code the stem of the generic name *Aulacoscelis* is AULACOSCEL-;
- (2) to place on the Official List of Generic Names in Zoology the name *Aulacoscelis* Duponchel & Chevrolat, 1842 (gender: feminine), type species by monotypy *Aulacoscelis melanocera* Duponchel & Chevrolat, 1842;
- (3) to place on the Official List of Family-Group Names in Zoology the name AULACOSCELINAE Chapuis, 1874, type genus *Aulacoscelis* Duponchel & Chevrolat, 1842 (spelling ruled as correct in (1) above);
- (4) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following names:
 - (a) Aulacoscérites Chapuis, 1874 (an incorrect original spelling of AULACOSCELINAE Chapuis, 1874);
 - (b) AULACOSCELIDINAE (an incorrect subsequent spelling of AULACOSCELINAE Chapuis, 1874 by Kushel & May (1990) as ruled in (1) above).

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Case 3439***Xantholinus gracilis* Sperk, 1835 (Insecta, Coleoptera): proposed conservation of prevailing usage by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75 of the Code, is to conserve the usage of the specific name of the staphylinid *Xantholinus gracilis* Sperk, 1835 (currently *Scopaeus gracilis*). The holotype of *Xantholinus gracilis* is lost and the originally published characters differ from those of *Scopaeus gracilis* as currently understood. It is proposed that a neotype that is in accord with the current use of the name be designated.

Keywords: Nomenclature; taxonomy; STAPHYLINIDAE; *Scopaeus*; *Xantholinus*; *Scopaeus gracilis*; *Xantholinus gracilis*; staphylinid beetle; Palearctic.

1. The description of *Xantholinus gracilis* Sperk, 1835 (p. 152) was based on a single specimen from Nezhin in what is now Ukraine. Although it is impossible to refer the species to a genus using the characters in the original description (Frisch, 2007, p. 202), Kraatz (1862, p. 299) assigned it to *Scopaeus* Erichson, 1839 without examining the type; but, with few exceptions (for example see the combination *Xantholinus gracilis* in Gemminger and Harold, 1868, p. 602), the species has since been treated as belonging to *Scopaeus*. The name *Scopaeus gracilis* (Sperk, 1835) was used by most 19th century authors, but Marseul (1883, p. 134) and Fowler (1888, p. 311) inexplicably cited it as an invalid synonym of the younger name *Scopaeus erichsonii* Kolenati, 1846, currently the next oldest synonym of *Scopaeus gracilis*, while Heyden (1880, p. 76) cited it as a junior synonym of *Scopaeus breviventer* (Sperk, 1835), originally described as *Xantholinus* Dejean, 1821 and currently in *Gabrius* Stephens, 1829. The only use of *S. erichsonii* in the 20th century was apparently by Edmonds (1931, p. 273), who copied Fowler (1888) but admitted that 'It seems now to be generally agreed that *gracilis* Sperk is the correct name...'. *Scopaeus gracilis* is a well-known, commonly collected, western Palearctic species (Frisch, 2007, pp. 200–201) that in the last 50 years has been cited as a valid name in at least 89 articles by 81 authors (a list of these 89 references is held by the Secretariat).

2. In his revision of the species, Frisch (2007, pp. 197–203) concluded that *Xantholinus gracilis* and *Scopaeus gracilis*, as currently understood, were different

species because the characters in the original description of the former contradict those of the currently accepted, long-held concept of the latter. According to Sperk's (1835, p. 152) description, *X. gracilis* has a cylindrical, pitch-black pronotum, which is more strongly punctured than the head. These characters do not exist in *Scopaeus* which is characterized by an oval pronotum, which is much more finely punctured than the head. Moreover, Central European specimens of *Scopaeus gracilis* have a brown pronotum. *Xantholinus gracilis* and *Scopaeus gracilis* also occupy different habitats. Sperk (1835, p. 153) reported *Xantholinus gracilis* from peaty areas of the lowlands of northern Ukraine. Frisch (2007, pp. 200–201) pointed out that *Scopaeus gracilis* was known only from gravelly shores of rivers and streams in mountainous regions, that no specimens had been collected from the northern lowlands of Ukraine or central Europe, and that in Ukraine the species is known only from the Carpathians and the Crimea.

3. By 1845 the Sperk collection had been incorporated into the collection of Krynicki at the University of Kharkov (Motschulsky, 1845, p. 42). A. Drogvalenko, head of the Department of Invertebrates at the Natural History Museum of Kharkov University, in correspondence with Frisch, reported that the holotype of *Xantholinus gracilis* had been lost a long time ago, but that the name was included in the handwritten catalog of the Sperk collection and in the printed 1854 catalog of the University of Kharkov collection (Frisch, 2007, p. 202). Ten years earlier, in response to a query from Frisch, Alexander Kirejtshuk (Zoological Institute, St. Petersburg), who comes from Kharkov, had also reported that the holotype was missing.

4. Because *Xantholinus gracilis* and *Scopaeus gracilis* evidently represent different species, the prevailing use of the latter name could be threatened should the original specimen of the former be found or should someone decide to revise the concept of the species using the originally published characters. A neotype is hereby designated for *Xantholinus gracilis* to stabilize the prevailing use of *Scopaeus gracilis*. Provisions of Articles 75.3.5 and 75.3.6 requiring that the neotype be consistent with the original description and that it come as nearly as practicable from the original type locality cannot be met. Should the original specimen be found and should it in fact be a species different from one currently in use, then Article 75.8 applies, unless the Commission rules that the neotype is to be retained as the name bearing type.

5. To stabilize the current use of the name involved (see Appendix) we propose that the following specimen be designated as the neotype of *Xantholinus gracilis* Sperk: a male mounted on a card with the aedeagus, tergite and sternite VIII, segment IX, and tergite X dissected and mounted on the same card; beneath the card are two labels as follows. Label 1: 'Greece, Central Macedonia/Sithonia: Sarti/10m/N 40°05'51" E 023°58'49"/06.07.2006, leg. J. Frisch'. Label 2: '*Scopaeus* Erichson 1839/*gracilis*/ (Sperk 1835)/det. J. Frisch'. The specimen is deposited in the Natural History Museum of the Humboldt-University, Berlin, Germany. Characters that distinguish *Scopaeus gracilis* (Sperk) in its current interpretation from all congeners and from the original description are published in Frisch (2007, pp. 196–203).

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for *Xantholinus gracilis* and to designate as neotype the specimen deposited in the Natural

History Museum of the Humboldt-University, Berlin, Germany, as specified in para. 5;

- (2) to place on the Official List of Specific Names in Zoology the name *gracilis* Sperk, 1835, as published in the binomen *Xantholinus gracilis*, as defined by the neotype designated in (1) above, with the endorsement that the neotype designated by the Commission is to be retained as the name-bearing type should the original specimen be found.

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Xantholinus gracilis Sperk, neotype, Greece. The total length is 3.4 mm (excluding the separately mounted genital and sclerites).

Case 3443***Tentyria* Latreille, 1802 (Insecta Coleoptera, TENEBRIONIDAE): proposed conservation of usage by designation of *Tentyria ligurica* Solier, 1835 as the type species**

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Abstract. The purpose of this application, under Article 69 of the Code, is to conserve the usage of the generic name *Tentyria* Latreille, 1802 by designation of *Tentyria ligurica* Solier, 1835 as the type species of this genus of darkling beetles from the Palaearctic region. A series of previous nomenclatural acts resulted in the designation of *Pimelia orbiculata* Fabricius, 1775 as the type species of both *Tentyria* Latreille, 1802 and *Tentyrina* Reitter, 1900 making *Tentyrina* Reitter, 1900 an objective junior synonym of *Tentyria* Latreille, 1802. It is proposed that all previous fixations of type species of *Tentyria* Latreille, 1802 be set aside and *Tentyria ligurica* Solier, 1835 be designated as the type species.

Keywords. Nomenclature; Coleoptera; TENEBRIONIDAE; Tentyriini; *Tentyria*; *Tentyrina*; *Tentyria ligurica*; *Tentyrina orbiculata*; darkling beetles; Palaearctic region.

1. Latreille (1802, p. 170) described a new genus *Tentyria* and included two species in it, *Pimelia glabra* Fabricius, 1775 (p. 253) (citing it as *Akis glabra*) and *Pimelia orbiculata* Fabricius, 1775 (p. 253) (citing it as *Akis orbiculata*). Although the species concept of *Pimelia orbiculata* is well-understood (Gebien, 1906, 1910, 1937; Peyerimhoff, 1907; Schuster, 1938; Löbl et al., 2008), the identity of *Pimelia glabra* has been problematic. The only specimen in the Kiel Museum purported to be the type of *P. glabra* (see Zimsen, 1964) cannot be this species as it differs from the original description with regard to its elytral characters (see Gebien, 1906). The main collection of Fabricius (the Kiel Collection) was transferred on loan to ZMUC (Denmark, Copenhagen, University of Copenhagen, Zoological Museum) in 1950,

where it now resides. According to Koch (1940, p. 116), *P. glabra* is a *Tentyria*-like species of unknown identity and the types are considered to have been lost. The diverse Palaearctic genus *Tentyria* contains 123 species and subspecies in two subgenera (Löbl et al., 2008) and is the type genus for the valid tribe TENTYRIINI Eschscholtz, 1831.

2. Latreille (1810, p. 429) subsequently designated *Pimelia orbiculata* Fabricius, 1775 (cited as *Akis orbiculata*) as the type species of *Tentyria* Latreille, 1802 and this designation was followed by Blanchard (1841) and Crotch (1870).

3. Reitter (1900, p. 92) described the genus *Tentyrina* and included two species in it, *Tentyria haagii* Kraatz, 1865 (p. 155) and *Pimelia orbiculata* Fabricius, 1775. Reitter (1900) did not select a type species. Confusion about the correct identity of the species originally included by Reitter in *Tentyrina* followed (Gebien, 1906, 1910; Peyerimhoff, 1907; Gridelli, 1929). *Tentyria haagii* sensu Reitter, 1900 is currently considered a misidentification of *Pimelia orbiculata* Fabricius, 1775 whereas the nominal species *Tentyria haagii* Kraatz, 1865 belongs to *Oterophloeus* Desbrochers des Loges, 1881 (Gebien, 1937; Löbl et al., 2008). *Tentyrina* contains 20 species and subspecies including *Pimelia orbiculata* Fabricius (Löbl et al., 2008).

4. In the most recent catalogue of the world TENEBRIONIDAE, Gebien (1937, p. 126) designated *Pimelia glabra* Fabricius, 1775 as the type species of *Tentyria* Latreille, 1802 and *Pimelia orbiculata* Fabricius, 1775 as the type species of *Tentyrina* Reitter (see Gebien, 1937, p. 624). Gebien's type species designation for *Tentyria* is invalid because of the previous valid designation by Latreille (1810) (see para. 2), but his designation of *Pimelia orbiculata* Fabricius as the type species of *Tentyrina* is valid. The result of the above nomenclatural acts is that the valid type species for both *Tentyria* and *Tentyrina* is *Pimelia orbiculata* Fabricius, 1775, and therefore *Tentyrina* Reitter, 1900 is an objective junior synonym of *Tentyria* Latreille, 1802.

5. Strict adherence to the Code would lead to *Tentyrina* being replaced by the older name *Tentyria* and the diverse and well-known group of species currently known as the genus *Tentyria* would require another name. This problem was initiated by Reitter (1900) when he placed *Pimelia orbiculata* Fabricius, 1775, the valid type species of *Tentyria* Latreille, 1802 in his new genus *Tentyrina*. Following Reitter's generic concepts, Gebien (1937) later designated *Pimelia orbiculata* Fabricius, 1775 as the type species of *Tentyrina* Reitter, 1900 while designating a new type species for *Tentyria*. Unfortunately, most authors have followed these generic concepts and therefore stability of approximately 150 species and subspecies names from the European and North African coast of the Atlantic Ocean to central Asia, including some crop pests (e.g. Allsopp, 1980), is threatened. In order to preserve current generic concepts, we believe that a new type species should be designated for *Tentyria*. Because of the problematic species concept of *Pimelia glabra* Fabricius (see para. 1) we ask the Commission to set aside all previous fixations of type species for *Tentyria* Latreille, 1802 and to designate a well-known species, *Tentyria ligurica* Solier, 1835 (p. 324), as the type species of this genus. Type material for *T. ligurica* is available in Solier's collection housed at the Muséum National d'Histoire naturelle de Paris (Cambefort, 2006) (see also Ardoin, 1973). This designation will promote the stability for the concept of the genus *Tentyria* Latreille as currently accepted by all authors.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Tentyria* Latreille, 1802 and to designate *Tentyria ligurica* Solier, 1835 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Tentyria* Latreille, 1802 (gender: feminine), type species *Tentyria ligurica* Solier, 1835, as ruled in (1) above;
 - (b) *Tentyrina* Reitter, 1900 (gender: feminine), type species by subsequent designation by Gebien (1937) *Pimelia orbiculata* Fabricius, 1775;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *ligurica* Solier, 1835, as published in the binomen *Tentyria ligurica* (specific name of the type species of *Tentyria* Latreille, 1802), as designated in (1) above;
 - (b) *orbiculata* Fabricius, 1775, as published in the binomen *Pimelia orbiculata* (specific name of the type species of *Tentyrina* Reitter, 1900).

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Case 3419

CORYSTIDAE Foster & Philip, 1978 (Echinodermata, Echinoidea): proposed emendation of spelling to CORYSTUSIDAE to remove homonymy with CORYSTIDAE Samouelle, 1819 (Crustacea, Brachyura)

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Abstract. The purpose of this application, under Articles 29 and 55.3, is to remove the homonymy between the family-group name CORYSTIDAE Foster & Philip, 1978 (Echinodermata, Echinoidea) and CORYSTIDAE Samouelle, 1819 (Crustacea, Brachyura). CORYSTIDAE Samouelle, 1819 and CORYSTIDAE Foster & Philip, 1978 are homonyms resulting from similarity of the names of their type genera, *Corystes* Bosc, 1802 and *Corystus* Pomel, 1883, respectively. Both names are in use. It is proposed to change the spelling of the echinoderm family-group name to CORYSTUSIDAE by emending the stem of the name of the type genus *Corystus* Pomel, 1883, while leaving the crustacean name, based on *Corystes* Bosc, 1802, unchanged.

Keywords. Nomenclature; taxonomy; CORYSTIDAE; CORYSTUSIDAE; *Corystes*; *Corystus*; *Corystes cassivelaunus*; *Corystus dysasteroides*; Tertiary fossils; masked crab; Europe; Australia; New Zealand.

1. Weber (1795, p. 94) described a new genus of brachyuran crab (Crustacea) for the species *Hippa dentata* Fabricius, 1793 (p. 475) (a junior objective synonym of *Cancer cassivelaunus* Pennant, 1777 (p. 5) (see Boyko, 2002, p. 395) and named it *Euryala*.

2. Bosc (1802a, p. 65) considered *Hippa dentata* Fabricius, 1793 to belong to the genus *Corystes* (placed on the Official List of Generic Names in Zoology, Opinion 689, BZN 21: 20–21, March 1964) while giving no mention of authorship for *Corystes*. Bosc (1802b, p. 3), however, mentioned *Corystes* (in the vernacular as ‘coryste’) as being separated from *Albunea* Weber, 1795 by Latreille but, for reasons unexplained, Bosc (1802b, p. 4) listed the species in the combination *Albunea dentata*, instead of as *Corystes dentata*. This discrepancy in genus and species combinations is perplexing, especially as the volumes were issued at the same time. The publication dates of Bosc (1802a, b) were prior to ‘8 Floréal an. 10’ in the French Republican calendar system (= 28 April 1802), as evidenced by the citation of the issuing of the volumes (as well as Bosc’s 5 volumes on molluscs and 3 on ‘worms’) under the blanket listing of ‘Histoire Naturelle des Coquilles, des Vers et des Crustacés; par Bosc; 10 vol. in-18, fig., broch. en carton. 30 fr.’ in the *Journal Typographique et Bibliographique* (Anonymous, 1802, p. 242). This citation indicates an earlier date of publication for Bosc (1802a, b) than the 22 Nov 1802 given by Alonso (1996, pp. 465–466) that was considered as Bosc’s publication date solely by invocation of

Article 21(c) (ii) of the Code (3rd edition, 1985) (now Article 21.3.2 of the Code, 4th Edition, 1999). *Hippa dentata* was placed on the Official Index of Rejected and Invalid Specific Names in Zoology and *C. cassivelaunus* was placed on the Official List of Specific Names in Zoology in Opinion 689 (BZN 21: 20–21, March 1964).

3. Latreille (1802, p. 27) described a new genus of brachyuran crab (Crustacea) for the species *H. dentata* Fabricius, 1793 (cited as *Albunea dentata*), and named it *Corystes*. The publication date for Latreille (1802) has been shown to be November 1802 (fide Evenhuis, 1997, p. 439). As Bosc's (1802a) work precedes that of Latreille (1802) (see prior paragraph), the generic name *Corystes* must be attributed to Bosc, in spite of the fact that Bosc wrote his work with reference to Latreille's manuscript. Latreille (1802) clearly intended *Corystes* to be a new genus and Bosc (1802a) did not. This is evident from the text of Bosc (1802b) where he credits Latreille with the name (in the vernacular). Intent of authorship, however, cannot be taken into account when deciding on issues of priority and so it cannot be stated that Latreille's usage of *Corystes* was based on the earlier usage of Bosc (1802a). Therefore, Bosc (1802a) is the author of *Corystes*.

4. Holthuis (1962, p. 61) proposed that *Euryala* Weber, 1795 be suppressed for the purposes of Principle of Priority but not for those of the Principle of Homonymy and that *Corystes* Latreille be used as the valid generic name for this decapod crustacean taxon; this was adopted by the Commission in Opinion 689 (BZN 21: 20–21, March 1964, p. 20). At the time of Holthuis's application, the supposed later work of Bosc (1802a, b) was not taken into account, although the publication date of Latreille had already (Griffin, 1938, p. 157) been shown to postdate the 'an X' (22 Sept 1801–21 Sept 1802) date on the title page (actual publication date was during 'an XI' between 22 Sept 1802 and 21 Sept 1803 fide Griffin, 1938; more precisely November 1802 fide Evenhuis, 1997). A correction to the question of priority of Bosc vs. Latreille was later given by Holthuis (1975, p. 6), and this is supported by information newly gleaned from the *Journal Typographique et Bibliographique* (Anonymous, 1802; see paragraph 2 above). Despite continued citations that ascribe *Corystes* to Latreille (e.g. Feldmann et al., 1996; van Bakel et al., 2006), the correct authorship for *Corystes* is Bosc (1802a), as entered on the Official List of Generic Names in Zoology (see Melville & Smith, 1987).

5. Samouelle (1819, p. 82) listed CORYSTIDAE as a family-group taxon that included *Corystes* Bosc, 1802 and *Atelecyclus* Leach, 1814. Samouelle cited 'Leach' as the author of the family and referred to Leach (1815a–f) as the source for his taxonomic information. However, none of Leach's 1815 papers (1815a–f), nor his 1816 paper that is usually cited as being published in 1815, contain any mention of the family CORYSTIDAE, and authorship is therefore attributable to Samouelle (1819) and is in current use as the name of a family-level taxon (e.g. Martin & Davis, 2001). The name CORYSTIDAE is placed on the Official List of Family-Group Names in Zoology in Opinion 689 (BZN 21: 20–21, March 1964).

6. Foster & Philip (1978, p. 792) established a family for the fossil echinoid genera *Corystus* Pomel, 1883 (type species by original designation *Rhynchopygus dysasteroides* Duncan, 1877 (p. 49), *Cardabia* Foster & Philip, 1978 and *Huttonechinus* Foster & Philip, 1978, and named it CORYSTIDAE. This family-group name is in current use (e.g. Smith, 2004).

7. CORYSTIDAE Foster & Philip, 1978 is a junior homonym of CORYSTIDAE Samouelle, 1819, although the two families are based on non-homonymous type genera. As CORYSTIDAE Foster & Philip has no synonym that could be used as a replacement name, it is proposed to remove this homonymy by using the entire generic name *Corystus* as the stem for the formation of the echinoderm family name.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that for the purposes of Article 29 of the Code the stem of the generic name *Corystus* Pomel, 1883 is *Corystus*-;
- (2) to emend the entry on the Official List of Generic Names of Zoology for the name *Corystes* Bosc to record that the correct date of publication of Bosc's paper is prior to 28 April 1802;
- (3) to place on the Official List of Generic Names in Zoology the name *Corystus* Pomel, 1883 (gender: masculine), type species by original designation *Rhynchopygus dysasteroides* Duncan, 1877;
- (4) to place on the Official List of Specific Names in Zoology the name *dysasteroides* Duncan, 1877, as published in the binomen *Rhynchopygus dysasteroides* (specific name of the type species of *Corystus* Pomel, 1883);
- (5) to place on the Official List of Family-Group Names in Zoology the name CORYSTUSIDAE Foster & Philip, 1978, type genus *Corystus* Pomel, 1883 (spelling emended by the ruling in (1) above) (Echinodermata, Echinoidea);
- (6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name CORYSTIDAE Foster & Philip, 1978 (spelling emended to CORYSTUSIDAE, as ruled in (1) above) (Echinodermata, Echinoidea).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3410

***Raja say* Le Sueur, 1817 (currently *Dasyatis say*; Chondrichthyes, Myliobatiformes, DASYATIDAE): proposed change of spelling to *Raja sayi* Le Sueur, 1817**

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Abstract. The purpose of this application, under Article 33.2.3 of the Code, is to rule that the spelling of the name *Raja say* Le Sueur, 1817 (currently *Dasyatis say*) of bluntnose stingray be changed to *Raja sayi* Le Sueur, 1817 to follow Müller & Henle's (1841) unjustified emendation. The spelling *Raja sayi* Le Sueur, 1817 is in prevailing usage, and therefore could be conserved under Article 33.2.3.1 of the Code, but the exact meaning of 'prevailing usage' as it formulated in Article 33.2.3.1 is not sufficiently clear, allowing for subjectivity. It is proposed that the spelling be changed to *sayi* to ensure stability and future uniformity of use.

Keywords. Nomenclature; taxonomy; Chondrichthyes; Myliobatiformes; DASYATIDAE; *Dasyatis say*; *Dasyatis sayi*; bluntnose stingray; Western Atlantic.

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1. Le Sueur (1817, p. 42) established the name *Raja say*.
 2. Müller & Henle (1841, p. 166) proposed the new combination *Trygon sayi*, which they formalized by including an 'N.' after the species name, a symbol they used throughout their work to indicate nomenclatural changes proposed by them (generic allocations, new species, new combinations, etc.). Müller & Henle also listed Le Sueur's nominal species immediately following their emendation. Thus, Müller & Henle's nomenclatural act was 'demonstrably intentional' according to Article 33.2.1 of the Code. Müller & Henle (1841) probably believed, and with reason, that Le Sueur described this species in honour of fellow zoologist Thomas Say, an opinion also shared by the University of Evansville: 'Lesueur gives the first description of a fish to which he assigns the name *Raja say*, honoring his friend and colleague, Thomas Say' (<http://faculty.evansville.edu/ck6/bstud/sayfish.html>). According to the rules for the formation of species-group names (Article 31.1.2 of the Code): 'A species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name *-i* if the personal name is that of a man...'. Le Sueur's *Raja say*, however, represents a noun in apposition (although no such statement by him exists in the

original description), which is also a legitimate way of making a species-group name from a personal name (Article 31.1 of the Code), even though Recommendation 31A discourages it in favour of the genitive form.

3. The nomenclatural action of Müller & Henle (1841, p. 166) is therefore an ‘unjustified emendation’ (Article 33.2.3 of the Code). According to Article 19.1: ‘An unjustified emendation of an available name is itself an available name’. But note that in accordance with Article 33.2.3 ‘when an unjustified emendation is in prevailing usage and is attributed to the original author and date, it is deemed to be a justified emendation’.

4. However, according to our survey, which was not exhaustive but very indicative of present usage, both names are currently used, as in the following examples: The spelling ‘*D. say*’ was used by Jordan & Evermann (1896, p. 86), Evermann & Marsh (1902, p. 65), Fowler (1910, p. 473), Miranda Ribeiro (1923, p. 43), Boeseman (1948, p. 42), Buen (1950, p. 61), Figueiredo (1977, p. 38), Menni, Ringuelet & Aramburú (1984, p. 93), Nishida (1990, p. 3), Lovejoy (1996, p. 256), Menni & Stehmann (2000, p. 91), Rosenberger (2001, p. 615), McEachran & Carvalho (2002, p. 570), McEachran & Aschliman (2004, p. 101) and Santos & Carvalho (2004). The spelling ‘*D. sayi*’ was used by Duméril (1865, p. 603), Garman (1882, p. 69), Ringuelet & Aramburú (1960, p. 48), Breder & Rosen (1966, p. 96), Halstead (1970, p. 16), Castello & Carrera (1973, p. 4), Refi (1975, p. 130), Stehmann, McEachran & Vergara (1977, no pagination), Pereira (1982, p. 20), Schwartz (1984, p. 8), Snelson, Mulligan & Williams (1984, p. 72), Robins & Ray (1986, p. 65), Séret & McEachran (1986, p. 40), Gomes, Santos & Medina (1991, p. 307), Castro-Aguirre & Pérez (1996, p. 28), Snelson, Williams-Hope & Schmidt (1988, p. 730), Snelson, Williams-Hope & Schmidt (1989, p. 15), Asahida, Terashima & Chang (1990, p. 73), Cervigón (1992, p. 199), Compagno (1992, pp. 76, 80), Schwartz (1992, p. 48), Tomás & Tutui (1996, p. 588), Deynat (1998, p. 160), Compagno (1999, p. 496), Allué, Lloris & Meseguer (2000, p. 25), Hill (2001, no pagination), Bor (2002, no pagination), Gomes & Gadig (2003, p. 30), Compagno (2005, p. 542), Burgess (2006, no pagination), Sheremetyev (2006, no pagination), website Elasmodiver (2006, no pagination), and Santos & Carvalho (2007).

5. *Dasyatis sayi* is deemed to be a justified emendation of *D. say*, as it is in prevailing usage. A justified emendation replaces the incorrect original spelling and retains the authorship and date of the original name (Articles 19.2 and 33.3.1 of the Code). Even though more cases using *D. sayi* were found in our survey compared to *D. say*, the exact meaning of ‘prevailing usage’ as it formulated in Article 33.2.3.1 of the Code is not always clear, allowing for subjectivity, even though defined in the Glossary of the Code as ‘that usage of the name which is adopted by at least a substantial majority of the most recent authors concerned with the relevant taxon, irrespective of how long ago their work was published’. We further note that in this case both names have been used contemporarily in taxonomically, economically or ecologically relevant publications, but that the notion of ‘prevailing usage’ may otherwise be artificially skewed by works that are mere compilations, unscholarly websites, etc. The issue must be solved as this is a common species that figures heavily in the literature, and which has been referred to continuously under two different names. Therefore, in order to promote a definitive decision and to maintain stability, we refer this matter to the Commission for a ruling under the plenary power in favour

of the specific epithet that has the greatest chance of gaining universal acceptance. Meanwhile, the name *Dasyatis sayi* (Le Sueur, 1817), used by a slightly greater number of workers, must be maintained according to Article 82.1 of the Code.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that *say* Le Sueur, 1817, as published in the binomen *Raja say*, is an incorrect original spelling of *sayi* Le Sueur, 1817;
- (2) to place on the Official List of Specific Names in Zoology the name *sayi* Le Sueur, 1817, as published in the binomen *Raja sayi* (emended original spelling of *Raja say* Le Sueur, 1817 as ruled in (1) above);
- (3) to place on the Official Index of Rejected and Invalid Specific names in Zoology the name *say* Le Sueur, 1817, as published in the binomen *Raja say* (incorrect original spelling of *Raja sayi* Le Sueur, 1817 as ruled in (1) above).

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Case 3442**The avian species-group name *Columba norfolciensis* Latham, 1801 (Aves, COLUMBIDAE): proposed suppression**

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Abstract. The purpose of this application, under Article 81.1 of the Code, is to avert ongoing nomenclatural confusion by suppression of the ambiguous and untypified binomen *Columba norfolciensis* Latham, 1801, which has been applied to three different species in different columbid genera within the last hundred years.

Keywords. Nomenclature; taxonomy; COLUMBIDAE; *Columba norfolciensis*; Australasia.

1. The binomen *Columba norfolciensis* Latham, 1801 was based on a presumed male pigeon with white head and blackish purple body and a presumed female of the same species with ferrugineous head and breast and green dorsum, both from Norfolk Island (Latham, 1801a, p. 60). There is no type material to fix the taxonomic identity of the name. For the new Australasian birds he described at the time, Latham relied on anecdotal reports and paintings from the infant colony at Port Jackson (Latham, 1801b, p. 374; Sharpe, 1906, pp. 107–108), and in this case, perhaps, a figure of the presumed male drawn by Captain John Hunter when he spent 11 months on Norfolk Island in 1790–1791 (Hindwood, 1965). That illustration, now in the National Library of Australia, Canberra (Hunter Sketchbook, painting no. 89), matches Latham's description of the male closely, although Latham (1801a, b) makes no mention of it.

2. Latham's meagre description of *Columba norfolciensis* caused ornithologists of the 19th century to vacillate about its taxonomic identity. In his '*Handbook to the Birds of Australia*', Gould (1865, p. 112) applied the name to the white-headed pigeon of eastern Australia, known today as *Columba leucomela* Temminck, 1821 (p. 126), after earlier referring to it as *Columba leucomela* in '*The Birds of Australia*' (Gould, 1845, text to pl. 59). Salvadori (1893) and Sharpe (1899) later reverted to *Columba leucomela* for that pigeon, the former leaving the name *Columba norfolciensis* unassigned in a footnote on p. 320: 'As there is no reliable evidence that this bird is found in Norfolk Island, the name *norfolciensis* cannot stand'.

3. Early in the 20th century, Mathews (1910–1911, p. 124) re-identified *Columba norfolciensis* Latham, 1801 with the east Australian white-headed pigeon, partly in the belief that its type locality was misreported. As a result, *Columba norfolciensis* was employed for that species for most of the 20th century until 1975, in diverse journal papers (see references in McGill, 1953), manuals (e.g. Cayley, 1931) and field guides

(e.g. Leach, 1953; Slater, 1970), all of which followed this usage in national Australian and global checklists (R.A.O.U. Checklist Committee, 1926; Peters, 1937; Wolters, 1975–1982).

4. Hindwood (1965, p. 92) and Goodwin (1967, p. 276) reached different conclusions. Hindwood provided firm evidence that a small dove was present on Norfolk Island at the time of the first European settlement in the 1790s, and suggested that it could have been represented by the John Hunter drawing (see para. 1) and Latham's description of the male of *Columba norfolciensis*. Goodwin took up the point, accepting *Columba norfolciensis* as a species that had been exterminated on Norfolk Island soon after settlement and assigning it tentatively to the ground-dove genus *Gallicolumba* Heck, 1849. In the next Australian checklist of non-passerines, Condon (1975) implicitly followed Goodwin by reintroducing *Columba leucomela* Temminck, 1821 for the Australian white-headed pigeon. Then, when sub-fossil bones of a presumed *Gallicolumba* were reported from Norfolk Island in the late 1970s (Rich et al., 1983; Meredith, 1985), Christidis & Boles (1994) took the step of applying the name *Gallicolumba norfolciensis* (Latham, 1801) to that species in a further list of Australian bird species, albeit with caution. Some recent Australasian and global checklists, handbooks and journal papers – Higgins & Davies (1996), Gibbs et al. (2001), Holdaway & Anderson (2001) and Holdaway et al. (2001) have since followed suit.

5. Schodde (1997, p. 62) reintroduced Latham's (1801a) 'female' of *Columba norfolciensis* into the equation, pointing out, as Hindwood (1965, p. 92) had before him, that its description actually matched the common emerald dove, *Columba indica* Linnaeus, 1758 (p. 164) (currently *Chalcophaps indica*). The emerald dove is extant on Norfolk Island today, but, according to one anecdotal report, was introduced from the Solomon Islands later in the 19th century than the description of *Columba norfolciensis* Latham in 1801 (cf. Hull, 1910, p. 642). Nevertheless, there is no reliable evidence that it was *not* present before 1801. This emerald dove does not occur in the Solomon Islands; its bone fragments have been reported in sub-fossil deposits on Norfolk Island (Meredith, 1985); and recent skin material of the local population on Norfolk Island shows it to be a large form of *Chalcophaps indica sandwichensis* Ramsay, 1878 (p. 288; originally as *Chalcophaps chrysochlora* var. *sandwichensis*) of Vanuatu and New Caledonia which is also indigenous to neighbouring Lord Howe Island (R. Schodde, unpublished data). This suggests that emerald doves have been present on Norfolk Island for at least a century or two, back beyond the time of first European contact. If so, they are just as likely to have been the small or 'delicate' dove reported, though never described, in the accounts of early settlement as the dove figured by John Hunter in 1790–1791 (cf. Hindwood, 1965; Holdaway & Anderson, 2001, p. 96). Sibley & Monroe (1990, p. 200) had already tentatively applied *Columba norfolciensis* Latham, 1801 to *Chalcophaps indica* (Linnaeus, 1758), and Baptista et al. (1997, p. 151) followed in the '*Handbook of the birds of the world*'.

6. Resolving the application of *Columba norfolciensis* Latham, 1801 by designation of a neotype raises problems of its own: for which species should this name be used? If reapplied to the Australian white-headed pigeon, it would unsettle the name *Columba leucomela* Temminck, 1821, now in consistent use for this species since 1975 (Condon, 1975; Sibley & Monroe, 1990; Christidis & Boles, 1994; Higgins & Davies, 1996; Baptista et al., 1997; Schodde, 1997; Dickinson, 2003; Clayton et al., 2006).

Designation of a neotype from the fossil bones of the presumed *Gallicolumba* (see para. 4) may accord with most current nomenclature, but the identity of the bones has not been fully established (cf. Holdaway & Anderson, 2001, p. 96), a problem that could lead to nomenclatural instability in the future. Designation of a neotype based on the specimen represented in the Hunter Sketchbook painting no. 89 in the National Library of Australia is unsatisfactory because, due to the absence of matching specimen material from Norfolk Island, the painting cannot be identified objectively with any known species. Its connection with subfossil bones of the presumed *Gallicolumba* is entirely circumstantial. Designation of a neotype based on a specimen of the local Norfolk Island population of *Chalcophaps indica* (Linnaeus, 1758) satisfies best the criteria for neotype designation under Article 75.3 of the Code: it would directly match specimen material of known identity from Norfolk Island to the original description of *Columba norfolciensis* (female). This course, nevertheless, would displace the in-use name *Chalcophaps indica sandwichensis* Ramsay, 1878 for the southwest Pacific subspecies of the common emerald dove.

7. The Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Committee reviewed the matter in 1994, its concern focussing on the fact that *Columba norfolciensis* Latham, 1801 had been applied to three different species in different genera within the last hundred years. Because of such conflicting recent usages, the SCON considered *Columba norfolciensis* a source of confusion that would remain so into the immediate future or beyond; and it therefore resolved to apply to the International Commission on Zoological Nomenclature for suppression of the name. It viewed such action as helping to maintain the in-use specific name *Columba leucomela* Temminck, 1821 for the Australian white-headed pigeon and the subspecific name *Chalcophaps indica sandwichensis* Ramsay for the form of the common emerald dove in the southwest Pacific. Moreover, it would facilitate naming subfossil columbid material from Norfolk Island when the identity of that material became fully clarified. Submitted to the Commission in February 1997, the SCON's case was nevertheless held back from publication because it included other names for suppression that were more readily invalidated under the then imminent Article 23.9 of the 4th edition of the Code. Thus, although most major modern checklists and references covering Australasian birds have since begun to avoid *Columba norfolciensis* Latham (Schodde & Mason, 1997; Dickinson, 2003; Clayton et al., 2006; Gill & Wright, 2006), the name is still available with potential to confuse.

8. The International Commission on Zoological Nomenclature is accordingly asked to use its plenary power:

- (1) to suppress the name *norfolciensis* Latham, 1801, as published in the binomen *Columba norfolciensis*, for the Purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *norfolciensis* Latham, 1801, as published in the binomen *Columba norfolciensis* and as suppressed in (1) above.

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This application has been evaluated and approved by all responding members (10 of 12) of the SCON. It was originally submitted to the Commission on 19 April 2007 as a combined application (Case 3415) with Cases 3415 (BZN 65: 31–34), 3441 (withdrawn) and 3440 (BZN 65: 42–25).

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Case 3449***Diomedea melanophris* Temminck, 1828 (currently *Thalassarche melanophris*; Aves, Procellariiformes): proposed conservation of original spelling**

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Abstract. The purpose of this application, under Articles 33.2.3 and 33.3 of the Code, is to rule that the name of the Black-browed Albatross *Diomedea melanophris* Temminck, 1828 (currently *Thalassarche melanophris*) is confirmed as the correct original spelling. Since 1839, half of authors have used *melanophris* and the other half *melanophrys*, following Temminck's (1839) incorrect subsequent spelling. The difference is not statistically significant, and it is proposed that the original spelling is confirmed as correct to follow the priority and to promote stability.

Keywords. Nomenclature; taxonomy; Aves; Procellariiformes; DIOMEDEIDAE; *Thalassarche melanophris*; *Thalassarche melanophrys*; Black-browed Albatross; Atlantic, Indian and Pacific Oceans.

1. The '*Nouveau recueil de planches coloriées d'oiseaux*' (hereafter '*Planches coloriées*') of C.J. Temminck & M. Laugier de Chartrouse was issued in 102 parts ('livraisons') in the period 1820–1839, and comprised 600 coloured plates depicting about 669 species (e.g. Stresemann, 1951). This massive work was intended to be a supplement to Buffon's classic '*Histoire naturelle des oiseaux*' (1771–1786) with the '*Planches enluminées*' engraved by F.-N. Martinet embodied in it. Temminck (1828; livraison 77, pl. 456 and text) described a small albatross from the Cape of Good Hope, South Africa, and named it *Diomedea melanophris*. Eleven years later, in his '*Tableau méthodique*' (livraison 102, p. 76), Temminck spelt the specific name *melanophrys*, with a letter 'y' instead of an 'i'. This has long caused much confusion among subsequent authors, who have used either one or the other form with similar frequency. Previous attribution of *Diomedea melanophris* by some authors to Boié in Temminck lacks a sufficient evidentiary basis and it appears that Temminck (1828) simply used Boié's manuscript name.

2. Temminck (1828) did not provide an etymology for the name *melanophris* when describing his bird, but at the same time he gave it the French name 'Albatross sourcils-noirs' (now 'Albatros à sourcils noirs', in English 'Black-browed Albatross').

Thus he obviously derived the name *melanophris* from the Ancient Greek μέλας (melas: black) and οφρύς (ophrys: eyebrow), a direct allusion to the bird's distinctive dark eyebrow and dark grey-black patch round the eye. As the last vowel of the word οφρύς is 'υ' (upsilon) and not 'ι' (iota), it would have been more accurately transliterated as 'u' as in *Cichlocolaptes leucophrus* (Jardine & Selby, 1830) (Aves, FURNARIIDAE) or 'y' as in *Callonetta leucophrys* (Vieillot, 1816) (Aves, ANATIDAE) (see The International Code of Zoological Nomenclature, Third edition, 1985: Appendix B). It is noteworthy that Temminck rendered the Greek letter upsilon as 'i' rather than 'y' in several scientific names throughout the '*Planches coloriées*'. For example, he wrote *Larus melanorhynchus* (pl. 504) and *Gallinula eurizona* (pl. 417), but used *Diomedea brachiura* (pl. 11) only in the title, and *Diomedea brachyura* in the text. These spellings have also been changed in the '*Tableau méthodique*'.

3. Replacement of the letter 'i' by 'y' is certainly not without importance, because they had different pronunciations in Ancient Greek; 'ι' (iota) being pronounced like the French, German, Spanish, Portuguese, etc. 'i', and 'υ' (upsilon) like the French 'u' or German 'ü'. Ancient Latins took 'y' from the Greek alphabet in order to render this last sound in latinized Greek words.

4. Temminck (1839, livraison 55, pl. 456 and text) did not make any explicit statement of intention when he changed the spelling of the name *melanophris* to *melanophrys* in his '*Tableau méthodique*', and only used it one time in this work, so that the provisions of Article 33.2.1 of the Code do not apply. It should be noted that '*Tableau méthodique*' was a systematic list of avian species, with references to '*Planches enluminées*' of the '*Histoire naturelle des oiseaux*' of Buffon (1770–1788) and Temminck's '*Planches coloriées*', without opportunity for mentioning the name *melanophrys* more than once.

5. A number of influential authorities have used either *melanophris* (e.g. Peters, 1931; Sibley & Monroe, 1990; del Hoyo et al., 1992) or *melanophrys* (e.g. Saunders & Salvin, 1896; Jouanin & Mougin, 1979; Brooke, 2004) without reaching a consensus and these works have been used by later authors. For example, out of a sample of 222 references ranging from the years 1865–2007, 112 (50.5%) used *melanophris* and 110 (49.5%) *melanophrys* (the lists of references are held by the Secretariat). The tendency to use *melanophrys* was a little more marked between the years 1990–2007; 81 works (53.3%) out of 152 using this spelling during this period. These differences were evidently not statistically significant (Chi-squared = 0.02, d.f. = 1, $P > 0.05$ and Chi-squared = 0.66, d.f. = 1, $P > 0.05$, respectively), and it can be safely stated that both names have appeared in the scientific literature with about the same frequency since the middle of the 19th century.

6. In sum, no intentional emendation (Article 33.2.1) by Temminck (1839) can be demonstrated (only perhaps inferred), and *melanophrys* must thus be regarded initially as an incorrect subsequent spelling (Article 33.3). Under the circumstances of nearly equal and widespread use of both spellings of the species name, prevailing usage cannot be cited to award *melanophrys* the status of correct original spelling in place of *melanophris* (Article 33.3.1), even though the etymology would favour doing so. The best chance to end one and a half century of instability and to establish a single stable name for this species of albatross, is to have the original spelling by Temminck (Temminck, 1828) officially endorsed by the Commission and placed on the Official List of Specific Names in Zoology. However, if the outcome of the

Commission's vote is to reject by a two-thirds majority in para. 7 (below), the result would be to rule under the plenary power that *Diomedea melanophris* Temminck, 1828 is suppressed and placed on the Official Index and *Diomedea melanophris* Temminck, 1828 is placed on the Official List (as a justified emendation).

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to rule that the name *melanophris* Temminck, 1828, as published in the binomen *Diomedea melanophris*, is the correct original spelling;
- (2) to place on the Official List of Specific Names in Zoology the name *melanophris* Temminck, 1828, as published in the binomen *Diomedea melanophris*, as ruled in (1) above;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *melanophris* Temminck, 1839, as published in the binomen *Diomedea melanophris* (incorrect subsequent spelling of *Diomedea melanophris* Temminck, 1828, as ruled in (1) above).

Acknowledgments

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Comments on the proposed conservation of *Termes serratus* Froggatt, 1898 and *Termes serrula* Desneux, 1904 (Insecta, Isoptera, TERMITINAE)
(Case 3385; see BZN 64: 83–86, 185–187, 65: 47–49)

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Having read and closely followed arguments both for and against Jones's (BZN 64: 83–86) proposal to conserve the specific names *serratus* Froggatt, 1898 and *serrula* Desneux, 1904 for an Australian and Southeast Asian (specifically Sundanian) species of *Microcerotermes*, respectively, I wish to offer some views as a researcher who has worked on the taxonomy and ecology of termites in the Southeast Asian region.

Jones proposed to the Commission to conserve the name *Microcerotermes serrula* (Desneux, 1904) for a common Southeast Asian termite and to suppress the name *Microcerotermes serratus* (Haviland, 1898) for this species on the grounds that the name *Microcerotermes serratus* (Froggatt, 1898) had been used for a well-known Australian species of termite for over 100 years before Roisin & Pasteels (2000) discovered an error in precedence. The name *serrula* was originally proposed for the Southeast Asian species by Desneux (1904) to replace the name *serratus* Haviland, 1898 because it was thought that the latter name was preoccupied by the name applied to the Australian species. However, despite the journal volume having an imprinted year of publication that is a year earlier, the actual date of publication for the journal issue in which the Australian species was described has been shown by Roisin & Pasteels to be two months later than that of the Southeast Asian species. Thus, in revising the Papuan species of *Microcerotermes*, Roisin & Pasteels (2000) reapplied the name *serratus* Haviland to the Southeast Asian species (making *serrula* a junior synonym) and proposed the name *parviceps* Mjöberg, 1920, the next earliest name for the Australian species, as a replacement for the preoccupied name *serratus* Froggatt.

Jones (BZN 64: 83–86, 65: 47–49) cites seven and thirteen valid publications in which the names *Termes serrula* Desneux and *Termes serratus* Froggatt, respectively, have been used in the 50 years preceding the publication by Roisin and Pasteels (2000). In addition, I know of five other publications in the same period that use the name *serratus* Froggatt (Holt & Coventry, 1982; Nkunika, 1988; Verkerk, 1990; Hadlington, 1996; Abensperg-Traun & Perry, 1998), and there are probably yet others. Two of these publications deal with termites as pests.

Roisin & Pasteels (BZN 64: 185–187) and Jones (BZN 65: 47–49) both defend their views. Jones argues that the use of the name *serratus* for the Southeast Asian species could potentially cause confusion, as the name has always been applied to the Australian species, which is discussed in Australian texts as a pest of railway sleepers, fence posts and utility poles. Roisin and Pasteels argue that the pest status of the Australian species is overstated by Jones. They feel the Commission should uphold their decision as they exercised their unquestioned prerogative as authors to make the nomenclatural changes without reference to the Commission after concluding the species were relatively little known. Jones maintains that he is exercising his

prerogative on behalf of the larger scientific community to apply to the Commission to conserve the long-standing usage of the names because the changes proposed could cause confusion.

The case is complicated by a number of factors:

1. The conservation of the two names is inextricably linked. A proposal to suppress the name *Termes serratus* Haviland, 1898 for the Southeast Asian species has consequences to the Australian species. Conservation of the name *serrula* Desneux and suppression of the name *Termes serratus* Haviland, 1898 for the Southeast Asian species would enable the name *Termes serratus* Froggatt, 1898 to be retained for the Australian species, as it will no longer be preoccupied by *Termes serratus* Haviland, 1898.

2. The proposal for conservation of these names was put forth seven years after the nomenclatural changes proposed by Roisin & Pasteels were published. Most proposals for the conservation of names are brought to the Commission by the original revisers at the time of revision. However, the nomenclatural changes of Roisin & Pasteels (2000) do not appear to have been used yet by any subsequent authors that have made reference to these species. In fact, it would appear that all references to these two species published subsequent to the revision use the names that were previously in effect. As Jones has also pointed out, it is likely that the prevailing misuse of names will continue because readers from the Australian and Southeast Asian regions are unlikely to refer to Roisin & Pasteels's (2000) revision, which gives no indication in the title or abstract of the implications to nomenclature of species beyond the Papuan region.

3. Jones himself unwittingly used the name *serrula* for the Southeast Asian species in articles published long after Roisin & Pasteels (2000) made the nomenclatural changes, and included these articles as justification for the proposed conservation of the name. Although the use of the name *serrula* Desneux was not a deliberate attempt to lend weight to the application for conservation of the name, these publications rightly should not be considered when examining the justification for the case, as this could set a precedent that might encourage the deliberate misuse of names to justify their conservation. The fact that Jones authored or co-authored these and other publications that make reference to *serrula* has prompted Roisin and Pasteels (BZN 64: 187) to suggest that Jones is not free of vested interests in the conservation of the name, and that a decision by the Commission to conserve the names would be tantamount to endorsing his and his coworkers' erroneous use of names 'a posteriori.'

4. Roisin & Pasteels (2000) submitted their paper when the third edition of the Code was in effect but they had opportunity to consult the fourth edition when revising the manuscript before publication, as they made reference to it in their discussion of the nomenclatural issues surrounding the two species in question. The fourth edition does not stipulate a minimum number of publications in which a name should have been used before a case can be referred to the Commission, and supposedly an application to the Commission could have been made before Roisin & Pasteels's (2000) paper was published.

As a researcher who has worked on both the taxonomy and ecology of termites in the Southeast Asian region, I understand the need for ecologists to respect and adhere to the principles by which taxonomists make decisions, as well as the need for taxonomists to consider the implications to other biologists, ecologists and society in

general when making decisions that affect nomenclature. The fact that many of the works cited by Jones are faunistic or ecological in nature and none are major taxonomic studies of the species concerned (Roisin & Pasteels, BZN **64**: 185–187) should not be a reason to reject or belittle them, as each citation is to be considered on its own merits regardless of the title or nature of the work in which the name appears (Article 79(c)(2)(ii) of the third edition of the Code).

My view is that the conservation of the names *serrula* Desneux, 1904 and *serratus* Froggatt, 1898 would be beneficial and in the interest of nomenclatural stability. The problem with the nomenclatural changes instated by Roisin & Pasteels (2000) is not so much the application of a different name to the Australian species but the application of a name long applied to the well-known Australian species to a different and common, albeit lesser-known, species from a different biogeographical region. This has the potential to cause confusion. As pointed out by Jones (BZN **64**: 83–86, **65**: 47–49), both species are cited in major texts on termites in their respective regions and are also cited in ecological literature. To uphold the name *serratus* Haviland for the Southeast Asian species would certainly lead to confusion, as the same name, *serratus* Froggatt has virtually always been used for over 100 years to refer to an Australian species, not only in the ecological literature but in all major faunal texts and in books dealing with Australian pest termites. I therefore support the application by Jones to the Commission to conserve the specific names *Termes serratus* Froggatt, 1898 (currently *Microcerotermes serratus*) and *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*).

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Jones (BZN **65**: 47–49) found additional publications mentioning the junior names *Microcerotermes serratus* (Froggatt, 1898) or *Microcerotermes serrula* (Desneux, 1904). For *M. serratus* (Froggatt), these records bring the number of such citations over 10, by more than 5 different authors, in the period 1950–1999. Jones argues that for these reasons, the criteria of Article 79(c) of the 3rd edition of the Code, current at the time we submitted our paper (Roisin & Pasteels, 2000), were met. We considered that the criteria of Article 79(c) were mere guidelines to evaluate what

constituted a threat to stability, but by no means strict decisional rules. We did not carry out a comprehensive survey of the literature to find out whether the total number of publications citing *M. serratus* (Froggatt) during the past 50 years was just below or just above 10. We determined that the number and current flow of such publications was very low, and that several of them did not carry any primary information but were only brief citations of earlier work (e.g. Grassé (1982) just cited Gay (1952); a single observation of damage to railway sleepers resulted in three citations: Perry et al. (1985), Watson & Gay (1991) and Barnacle et al. (1992). The only data about *M. serratus* (Froggatt) that appear plentiful are distributional records (Watson & Abbey, 1993). However, the status of colonies or populations identified as *M. serratus* (Froggatt) has long been uncertain: Watson & Abbey (1993, p. 5) acknowledged that 'extensive work on further series will be needed before the complexities of, e.g. *M. distinctus* and *M. serratus* can be unravelled'. In a similar way, Perry et al. (1985, p. 75) wrote '*M. serratus* is a very variable species (Hill, 1942), and may constitute a species-complex; its occurrence in the extreme south-west is open to doubt'. In addition, the lectotype of *Termes serratus* Froggatt has been lost (Watson et al., 1998, p. 232). Thus there is already some confusion as to the identity of *M. serratus* (Froggatt) itself, and it is likely that a future revision of Australian *Microcerotermes* would, in any case, imply the reassignment of some of the data presently attributed to this species.

As to *M. serratus* (Haviland), it is incorrect to state that this name has never been used between Holmgren (1911) and Roisin & Pasteels (2000). Harris (1966, p. 13) mentioned *Termes serratus* Haviland as currently in *Microcerotermes* without further comment, whereas in the same paper (p. 15), for another of Haviland's (1898) species, *Termes latifrons*, he added 'n. praeocc. *Nasutitermes havilandi* Desn.', thus acknowledging the renaming of this species by Desneux (1904). Harris (1966) thus considered *Microcerotermes serratus* (Haviland) as a valid combination. As to the use of *M. serrula* (Desneux), it has been mostly limited to catalogues or faunal lists, and the biology of his species remains virtually unknown.

Jones (BZN 65: 48) is concerned that new researchers starting to work on termites in either Southeast Asia or Australia would not consult our paper (Roisin & Pasteels, 2000) because its title solely mentions New Guinea and the Solomons. It has however long been established that the New Guinean insect fauna shows strong affinities with both southeast Asian and Australian faunas (e.g. Gressitt, 1982). Considering *a priori* a revisionary paper on the New Guinean species of a genus as irrelevant to the identification and nomenclature of southeast Asian or Australian species of the same genus is hazardous. It is not because Jones and some of his co-workers overlooked our paper (Roisin & Pasteels, 2000) and kept citing *Microcerotermes serrula* (Desneux) several years after we established its invalidity that subsequent authors will necessarily do the same.

In addition, Jones (BZN 65: 48) considers it likely that because the few existing monographs on southeast Asian termites (Thapa, 1981; Tho, 1992) make use of the junior names, future researchers will inevitably continue to do so, even if the Commission decides to maintain the senior names. We do not endorse this contemptuous attitude towards the Commission's Opinions: we do believe they will be implemented. In the present case, the number of people currently involved in research with southeast Asian or Australian *Microcerotermes*, and who would perhaps have to change their

habits, is ridiculously low. As to future researchers, it will probably not take more than one updated catalogue to convince them to use the correct names.

Insisting on the strict application of the Principle of Priority when a junior name is being used more than its senior synonym (or homonym) always creates some confusion. However, we believe it is necessary to do so as long as the resulting confusion is of minor importance. Otherwise, the Principle of Priority will lose its authoritative power. Authors might consider that nomenclatural rules are unimportant because improper use of names can always be ultimately validated by the Commission. This is what we call 'nomenclatural anarchy'. Jones's application is an attempt to have anarchic behaviour endorsed.

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Comment on the proposed conservation of *Reticulitermes* Holmgren, 1913 (Insecta, Isoptera) by reversal of precedence with *Maresa* Giebel, 1856
(Case 3412; see BZN 64: 230–234).

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I agree with Engel and Krishna (BZN 64: 230, 231) that *Reticulitermes* Holmgren, 1913 is in current use for a widespread and economically important genus of holarctic termites. A quick search in the ISI Web of Science database yielded 403 occurrences of *Reticulitermes* in article topics in the past 5 years, against none for either *Hemerobites* Germar, 1813 or *Maresa* Giebel, 1856. It would indeed be extremely disturbing if *Reticulitermes* had to be replaced by the long-forgotten name of either of these obscure fossils.

Although literature on fossil termites is rather scant, it appears that the type species of *Hemerobites* and *Maresa* are still considered congeneric with *Termes flavipes* Kollar, 1837, type species of *Reticulitermes* (Emerson, 1971; Nel & Paicheler, 1993). The three genus-group names thus remain subjective synonyms, which implies that action must be taken if the conservation of *Reticulitermes* is desired.

Engel and Krishna (BZN 64: 231) duly noted that the condition of Article 23.9.1.1 of the Code is met by *Hemerobites* (but not by *Maresa*) and that the condition of Article 23.9.1.2 is met by *Reticulitermes*. Consequently, they applied Article 23.9.2 to affirm the precedence of *Reticulitermes* Holmgren, 1913 over *Hemerobites* Germar, 1813. Interestingly, this procedure results in a triangular situation in which none of the three names can now be claimed to be valid: *Reticulitermes* has gained precedence over *Hemerobites*, but *Hemerobites* retains precedence over *Maresa* and *Maresa* over *Reticulitermes*.

It is obvious that prompt action by the Commission is needed, and in view of the outstanding prominence of *Reticulitermes* in the prevailing usage, I strongly support the application such as formulated by Engel and Krishna (BZN 64: 230–234).

Comments on the proposed conservation of usage of *Drosophila* Fallén, 1823**(Insecta, Diptera)**

(Case 3407; see BZN 64: 238–242)

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The proposition of Van der Linde et al. (BZN 64: 238–242) to maintain the name of *Drosophila melanogaster* has two consequences. The first is the loss of the name ‘*Sophophora*’ through synonymy with *Drosophila*. The second is the loss of identity of the current genus *Drosophila* (s.s.). To justify their proposition Van der Linde et al. (BZN 64: 238–242) emphasized the role of *D. melanogaster* in science and weakened the taxonomical significance of *Drosophila* (s.l.) and *Drosophila* (s.s.) that they proposed to split. In my opinion their arguments are oversimplified or not justified. The species of *Drosophila* (s.s.) have also played a major role in science and the classification is not as messy as it is suggested. I think the proposed nomenclatural change would be more detrimental for science than the simple elevation of *Sophophora* to the genus rank.

What is the colloquial meaning of *Drosophila*?

As indicated in the application, the genus *Drosophila* was established by Fallén (1823) to include twelve species. But the scientific renown of *Drosophila* was acquired later, at the beginning of the 20th century, when several species became study material for biological research and particularly for genetics. It is worth noting that the *Drosophila* model has never been restricted to only one species and more than 200 species of *Drosophila* have been cultured for laboratory research. Today most of the species under study are provided by stock centres, the Tucson and the Ehime centres being the two most important. Despite the name ‘*Drosophila* stock centres’ both provide species of other genera. The Tucson *Drosophila* Species Stock Center (<http://stockcenter.arl.arizona.edu/>) provides subcultures of approximately 240 different *Drosophila* species. These include species of *Chymomyza*, *Hirtodrosophila*, *Samoaia*, *Scaptodrosophila*, *Scaptomyza*, *Zaprionus* as well as the Hawaiian ‘*Drosophila*’. The Ehime *Drosophila* stock centre (<http://kyotofly.kit.jp/cgi-bin/ehime/index.cgi>) maintains 400 strains of 50 species and distributes these genetic resources to *Drosophila* researchers worldwide. These too include *Colocasiomyia*, *Chymomyza*, *Hirtodrosophila*, *Scaptodrosophila* and *Zaprionus*. Thus it is clear that, for geneticists, the name ‘*Drosophila*’ does not mean specifically *D. melanogaster* but the family DROSOPHILIDAE (and so includes *D. melanogaster*). Fly geneticists used to refer to the model species as ‘*melanogaster*’ instead of ‘*Drosophila*’ because the research community is aware that many species are used as study material. Research is also carried out on *albomicans*, *ananassae*, *immigrans*, *indianus*, *kikkawai*, *mojavensis*, *virilis* and, whichever genus individual species belong to, all are considered to be ‘*Drosophila*’. This usage suggests that, even under the name of *Sophophora melanogaster*, the species will still be considered as a ‘*Drosophila*’ and the term can be used in the titles and keywords of future publications. We should also note

that 'drosophila' (without initial upper case and not italicized) would be more appropriate.

The extent of paraphyly in *Drosophila*

The paraphyly of the voluminous genus *Drosophila* has been recognized for decades, and by numerous authors, for example Throckmorton (1975) in his phylogenetic analysis. Nonetheless, the only work to really address the question was the cladistic study by Grimaldi (1990). This contribution was so important that the classification it established for drosophilid species has remained fundamentally unchanged ever since. However, he admitted that a definitive, comprehensive study of relationships between subgenera and species groups in *Drosophila* remained to be done.

Van der Linde et al. (BZN 64: 238–242) mentioned Hawaiian '*Drosophila*' as a clade within *Drosophila* (s.s.), however this situation has not been fully accepted. Grimaldi (1990) grouped those species in the genus *Idiomyia* Grimshaw, 1901 and he suggested that calling *Idiomyia* (s.l.) '*Drosophila*', despite the morphological evidence to the contrary, would be 'diluting the diagnosis of the genus *Drosophila*, as a monophyletic group, of biological meaning.' Moreover the Hawaiian '*Drosophila*' are generally recognized to be the sister group of the genus *Scaptomyza*. Therefore it would be illogical to downgrade the Hawaiian '*Drosophila*' but not *Scaptomyza* under the genus *Drosophila*. Despite some unfounded contestation the Hawaiian '*Drosophila*' were considered to belong to *Idiomyia* by Grimaldi (1990) and are still classified in this way in Bachli's database (<http://taxodros.unizh.ch/>). Therefore, the monophyletic genus *Drosophila*, as defined by Grimaldi (1990), consists of only three major clades: *Sophophora* and the *immigrans-tripunctata* and *virilis-repleta* radiations of the subgenus *Drosophila*.

Today there are good arguments to upgrade *Sophophora* to generic status, particularly thanks to the meticulous work of M.J. Toda and his team (e.g. Hu & Toda, 2001). Moreover, the results of their morphological analyses are also supported by molecular data. Nevertheless, this does not justify disruption of the subgenus *Drosophila* as there is no morphological analysis indicating its paraphyly and most molecular analyses fail to resolve the branch order in this part of the phylogeny.

Van der Linde et al. (BZN 64, pp. 238–242) argue that various genera are positioned within *Drosophila* (s.l.). In fact these genera are positioned between *Sophophora* and *Drosophila* (s.s.), or between the Hawaiian '*Drosophila*' and the radiations of *Drosophila* (s.s.), but there is no strong evidence that any such genera intercalate between the *immigrans-tripunctata* and *virilis-repleta* radiations. If molecular analysis eventually suggests the paraphyly of *Drosophila* (s.s.) it would be necessary to study the morphology more deeply. As far as is known, however, the genus *Drosophila* is monophyletic once the subgenus *Sophophora* is removed (Grimaldi, 1990; Hu & Toda, 2001).

What would be the impact of the nomenclatural change on the classification?

As mentioned above, paraphyly in *Drosophila* arises mostly from the inclusion of the subgenus *Sophophora*. This problem in systematics is easily resolved by upgrading *Sophophora* to generic rank. This change would affect the names of only the 332 species currently classified within *Sophophora*, including *Drosophila* (S.) *melanogaster*

which would then be called *Sophophora melanogaster*. Stability would be maintained for the remaining *Drosophila* species, which are considered to be monophyletic. Van der Linde et al. (BZN 64: 238–242) propose retaining the binomen *Drosophila melanogaster* on the grounds of convenience. In that situation the subgenus *Sophophora* will become synonymous with *Drosophila* and the names of all 332 species in *Sophophora* will consequently become *Drosophila*. However, the names of all 817 species currently in the subgenus *Drosophila* will also have to change, as they do not belong to the same clade as *Sophophora*. Moreover, 78 species that had no subgeneric affiliation in the former *Drosophila* genus will stay in the new genus. Therefore, the *Sophophora* subgenus, previously defined as a monophyletic group, will now be mixed together with numerous species with which it probably has no affinity.

What would be the impact on scientific research?

The first research purpose for *Drosophila* was as a model in evolutionary biology, and this led naturally to the study of numerous species. As the majority of *Drosophila* species cultured were from the subgenera *Sophophora* and *Drosophila*, the literature of the 20th century involves the continuous comparison of the two lineages. This comparison disappears if *Sophophora* is synonymised with *Drosophila* (s.s.). Most new students of *Drosophila* systematics have to learn from the literature and the major changes proposed will render their task particularly difficult. The proposed nomenclatural change would also be more detrimental than its alternative for retrieving information from databases. It is worth noting that 642 taxa are represented under the genus *Drosophila* in sequence database according to the NCBI Entrez Taxonomy Homepage. With one click in the database, *Sophophora* could be moved to the genus level beside *Drosophila* but the proposed changes require *Sophophora* to be eliminated and reindexing of every one of the 456 taxa included in *Drosophila* (s.s.). Again reclassifying stocks at the different stock centres will be more difficult under the proposed nomenclatural change than the simple elevation of *Sophophora* to genus rank.

Changing *Drosophila melanogaster* to *Sophophora melanogaster* would have no impact as the model is routinely used and accepted in the scientific community and will never be abandoned. A change to *Sophophora melanogaster* would not be the end of the world for *melanogaster* geneticists but the proposed alternative might be so for others. For the stability of numerous branches of science (including systematics) the elevation of *Sophophora* to generic rank is preferable to the nomenclatural change proposed. A change in the status of *Sophophora* is likely to be relayed instantaneously through Flybase (<http://flybase.bio.indiana.edu/>) and major scientific journals. In consequence it would be promptly learnt by all researchers, whereas the alternative would have less media-penetration and the period of misuse and confusion would be consequently longer. It is worth noting that the Blast function of Flybase indicates *D. melanogaster* as being in the subgenus *Sophophora* and that most *melanogaster* geneticists must therefore be aware of its present classification. Geneticists should recognize that science is never static and thus, as an integral part of science, neither is systematics. Furthermore, if *D. melanogaster* is considered so sacred by geneticists, they should be less reticent to accept *S. melanogaster* in honour of the outstanding pioneer of genetics, A.H. Sturtevant, who established *Sophophora*.

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We oppose the application to conserve the usage of *Drosophila* in the sense of *melanogaster* Meigen. This proposal seeks the endorsement by the Commission of a particular classification and classification paradigm, whereas the preamble of the Code asserts the freedom of taxonomic thought or action.

While the stated purpose is the conservation of usage, the proposal in fact seeks to establish by that a new and as yet undefined concept of *Drosophila*. Today *Drosophila* is accepted as a large genus of flies, containing a number of species of importance to genetics. The most widely known species is *Drosophila melanogaster* Meigen. The proposal declares that the current concept of *Drosophila* is ‘paraphyletic’ and thus ‘violates modern systematic practice’. That practice is cladistics or Hennigian systematics. For followers of ‘evolutionary’ systematics, (Mayr, 1942; Simpson, 1944) or phenetics (Sneath & Sokal, 1973), paraphyletic taxa are acceptable. Then there are issues of the utility of large and small taxa (i.e. lumping vs splitting). We feel strongly that the Commission should not be endorsing one classification paradigm over another.

In an identical situation, some workers (Reinert et al., 2004) have split the large genus *Aedes*. According to their classification, the widely used name *Aedes aegypti* (Linnaeus) for the yellow fever mosquito has become *Stegomyia aegypti*. This change has not caused major nomenclatural instability, in fact the changed combination has ensured that people can distinguish between their modern classification and the old obsolete classification. Nomenclature will inevitably change to reflect progress and improvements in classification. If we wanted true nomenclatural stability in the sense

of unchanging names, then rather than calling the genus *Drosophila*, we would call it 'Conops' as Aristotle did more than 2,000 years ago. We feel that nomenclature should remain independent of taxonomy and that *Sophophora melanogaster* would be a fully acceptable name for the well-known vinegar fly of genetics under a new split cladistic classification.

Finally, this application assumes that the public cannot learn new words and definitions. About a decade ago, Google was a little-known noun to a very large number of people. Today everyone knows it, and also as a verb for searching online. Google will have no trouble in finding information about both *Drosophila* and *Sophophora*. We feel that the public can also learn the meaning of *Sophophora melanogaster* as well.

So we, the editorial team of the BioSystematic Database of World Diptera, urge our colleagues to take no action on this case. Let nomenclature remain independent from taxonomy. Let users decide what classification best serves their needs. The rest is taken care of by the existing International Code of Zoological Nomenclature.

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We are writing in opposition to the van der Linde et al. proposal to set aside *Drosophila funebris* (Fabricius, 1787) as the type of the genus *Drosophila* Fallén, 1823 and replace it with *Drosophila melanogaster* Meigen, 1830. Van der Linde and colleagues' case makes the argument that the paraphyletic nature of the genus *Drosophila* necessitates a nomenclatural change. This confuses classification, in this case phylogenetic classification, with nomenclature. It essentially asks the commission to rule in support of an unpublished classification without nomenclatural necessity. We disagree with this case on the grounds that: (1) this is not a nomenclatural issue and even if it were, there isn't a nomenclatural or taxonomic need to make this change at this time, and (2) the phylogenetic argument that van der Linde and colleagues make is based on unpublished methods and, when examined in detail, the supporting literature does not statistically support their case.

1. Nomenclature

While phylogenetic systematics is an important tool for taxonomists interested in delimiting species boundaries (e.g. Savolainen et al., 2005) and testing monophyly of higher-level taxonomic groups (APG II 2003), this field of science is quite distinct

from nomenclature. Cases submitted to the commission requesting an exception to the rules of priority generally follow a formal taxonomic revision in which species are moved from one genus to another, creating a nomenclatural problem. Case 3407 is quite different in that there has been no published study prompting such a revision, nor would a nomenclatural problem arise were such a revision to occur.

2. Methodology

When using phylogenetic trees to justify taxonomic or nomenclatural changes, care must be taken to ensure that those phylogenies are generated by established and reproducible methods and are, in fact, strongly supporting the taxonomic assertions being made. The van der Linde et al. case fails to meet either of these criteria. While we agree that evidence is mounting that the genus *Drosophila* is not monophyletic, and we strongly agree that the name *D. melanogaster* should be preserved in the literature, we also believe that the designation of a new type species for the genus *Drosophila* is premature because of issues with the methodology that van der Linde and colleagues are using to justify their case.

They make their argument on the basis of phylogenetic analyses that, while outside the scope of a nomenclatural comment, should be addressed briefly here. First, the phylogenetic methods used by van der Linde et al. to justify their case are unpublished, meaning that there is no opportunity to assess whether the analytical criteria are biased or even repeatable. Second, while several studies have been published suggesting that the genus *Drosophila* is not monophyletic, methodological rigour has not been applied evenly across studies. The works cited in the van der Linde et al.'s proposal are based upon heterogeneous data and may individually suffer from issues of non-independence, insufficient taxon sampling, inadequate character sampling, or lack of statistical support. Although we are unable to go into detail in the current comment, we feel that these issues should be considered when weighing the merits of the van der Linde et al. proposal.

Conclusions

Taxonomic hypotheses, like those proposed in other scientific disciplines, must be based upon well-supported, repeatable analyses of primary data using philosophically rigorous and published methods. Taxonomic progress, in the sense of creating stable, natural groupings of monophyletic taxa, is not served by revisions of existing nomenclature based on poorly executed or incomplete studies, particularly when these do not add any new data relevant to the problem. Given the status of the current data, there is no question that a comprehensive taxonomic revision of the genus *Drosophila* will be necessary in the future if the taxonomy is to reflect phylogenetic relationships. However such a major reorganization based on an unpublished phylogeny is premature, at best. Such a step will only lead to confusion and instability within the *Drosophila* literature, which is extensive with nearly 3,000 primary publications a year. Hundreds of ecological and evolutionary studies conducted on the *repleta*, *virilis*, and *immigrans* species groups, as well as the work focusing on the Hawaiian *Drosophila*, the premiere example of adaptive radiation in nature, would be dissociated were the genus names of over 1500 species to change repeatedly as monophyletic groups are proposed and overturned as new evidence from research accumulates. A taxonomic change with such wide effect should be well

supported and robust to subsequent revision as evolutionary relationships of individual species and groups are reassigned. The current proposal is neither good taxonomy, good nomenclature, nor good phylogenetic analysis. Instead, it attempts to replace thorough nomenclatural, taxonomic, and phylogenetic study by proposing a classification that is not resolved sufficiently to warrant consideration of the Commission.

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The Commission is asked by van der Linde et al. (BZN **64**: 238–242) to preserve the binomen *Drosophila melanogaster* Meigen, 1830. Some obvious points of the application should be stressed and some weak points reviewed.

1. Nomenclatural rules (the Code) regulate nomenclature, i.e. the rules govern how names are used to label recognized taxa formally at family, genus and species level in the Linnean and other systems.

2. The Code is concerned with formation, usage, availability and validity of names, criteria of publication, determination of authorships and dates of publication, and provides the means for maintaining the universality and continuity of usage and meaning of the names, and how to solve potential conflicts.

3. The Code deals largely with the nominal taxa (= nomenclatural taxa), i.e. taxa having their minimum contents linked to their name-bearing taxa of lower rank, or, in case of species-group taxa, to mandatory type individuals. The nominal taxa, in contrast to taxonomic taxa, do not have limits.

4. Taxonomists have freedom of action, i.e. they may, within the framework of voluntarily maintained provisions of the Code, split, unite, interpret, include, exclude, change the ranks of (upgrade or downgrade) existing taxonomic taxa and establish new ones in accordance with progress in knowledge, accepted theory of classification, or even their own ideas. Nobody is obliged to follow these researchers' decisions.

5. If asked, the International Commission of Zoological Nomenclature, is obliged by voting or usage of its Plenary Powers to solve any resulting or threatening nomenclatural problem, which is not or cannot be covered by the Code, even if this means deviating from its provisions.

6. In theory, nomenclature should be completely divorced from taxonomy. In practice (see 4 and 5 above) there is an overlap, because nomenclatural decisions by individual zoologists, as well as those of the Commission, involve mostly the names

of the taxonomic taxa. However, the principle of taxonomic freedom (see 4 above) is always maintained.

The present problem is how to preserve continuing usage of the well known binomen *Drosophila melanogaster* which is threatened by the intended split of the paraphyletic genus *Drosophila* into several smaller monophyletic genera (realized mainly by upgrading several of its subgenera) as suggested by a group of molecular phylogeneticists (van der Linde et al., BZN 64: 238–242). This is basically a taxonomic problem with nomenclatural consequences. *Drosophila melanogaster*, along with several other con-subgeneric model species, would then be classified within the genus *Sophophora* (presently a subgenus of *Drosophila*), unless the Commission changed the fixation of the validly designated type species of *Drosophila*. I should like to provide the following comments.

(1) The preservation of the binomen *Drosophila melanogaster* is desirable since it has been used in numerous publications and is well known to biologists as well as many outsiders and laymen. The arguments, however, focused as they are on *Drosophila melanogaster* and its allies alone, are short-sighted. The consequences for the nomenclature of the whole family DROSOPHILIDAE should be taken into account. The argument that in many general scientific papers the names ‘*Drosophila*’, ‘drosophila’ and ‘fly’ stand for *Drosophila melanogaster* can hardly be taken seriously; moreover ‘fly’ may often stand for *Musca domestica* or *Calliphora erythrocephala*.

(2) To approve the application would be to provide institutionalised support for one of several possible and coexisting hypotheses on the phylogeny of drosophilids. But hypotheses, by their very nature, may come and go and, after rigorous testing, may be replaced by better ones or at least by a set of alternatives. The Commission cannot discriminate between ‘superior’ and ‘inferior’ hypotheses, phylogenies and classifications – its role is to provide a formal framework of rules.

(3) The authors of the application are wrong in considering that their method of classification is the only correct one and must be accepted by the Commission. Freedom of taxonomic thought and action should override all other considerations.

(4) Amelioration of a classification found to be formed by sets of small monophyletic taxa, which are actually ingroups of one or more paraphyletic larger taxa, may be achieved basically by two procedures: (a) an analytic one – by splitting the paraphyletic taxon/(taxa) into two or more monophyletic taxa accompanied by inclusion of their ingroups, formerly classified as coordinate taxa (this is the taxonomic procedure suggested by the authors of the application); or (b) a synthetic one – to combine all the taxa in a comprehensive monophyletic taxon, in this case *Drosophila*, and to build up its structure to include only monophyletic subordinate taxa. This is the course I would recommend; a tacit agreement of all the researchers involved would be a prerequisite to such a solution. The argument that *Drosophila* (s.l.) would then be too large is of no scientific (and definitely of no nomenclatural) importance – how many well known and large genera (e.g. *Papilio*, *Carabus*) do we all know and use?

(5) *Drosophila melanogaster* is an important binomen. However, more important, in a long-term view, is the independence of nomenclature from current taxonomic/phylogenetic hypothesis and paradigm. Therefore, I recommend rejection of the application.

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The application to set aside all previous type fixations for the genus *Drosophila* Fallén, 1823 and to instead fix *Drosophila melanogaster* (Meigen, 1830) as the type species should be rejected for several reasons:

1. The authors incorrectly state that the application falls under Article 70.2 of the Code, which specifically refers to situations of overlooked type fixation (i.e., if an earlier type fixation had been overlooked, it would still be the valid type fixation with all subsequent type fixations invalid; but if this would cause instability or confusion, the case would need to be referred to the Commission). Nothing in the current application falls under the provisions of this Article, as there has been no overlooked type fixation. For *Drosophila*, type fixation and details of that fixation have been published numerous times in catalogues (Wheeler, 1965, 1970; Okada, 1977; Tsacas, 1980; Bächli & Rocha Pité, 1984; Evenhuis & Okada, 1989), major revisions (Sturtevant, 1942; Patterson, 1943; Hardy, 1965; Wheeler, 1981; Grimaldi, 1990), and other works (e.g. Sabrosky, 1999) since *Musca funebris* Fabricius, 1787 was fixed as the type species by Macquart (1835). There were many incorrect attributions of this same type fixation to Zetterstedt (1847), but it is evident in Zetterstedt (1847, see p. 2563) that he was following Macquart's (1835) type species designation. The details of the erroneous type fixation of *Musca cellaris* Linnaeus, 1758 are clear, as the species was not eligible (see Sabrosky, 1999, p. 118). In a nomenclatural sense, there is nothing confusing or unstable about the type fixation for either *Drosophila* or *Sophophora* Sturtevant, 1939.

2. Even if the valid and non-controversial type fixation by Macquart (1835) was to be set aside, for whatever reason, Article 67.2 expressly states that the only species eligible for this fixation are the originally included nominal species in Fallén (1823), which are listed in the application. *Drosophila melanogaster* is not eligible, as it was not originally included, and was not even described until seven years later.

3. Stability is not achieved through the proposed application. In fact, quite the opposite, as there will be tremendous instability created in the rest of *Drosophila*. The authors state that *Drosophila* (with the type being *Musca funebris*) and *Sophophora* (with the type being *Drosophila melanogaster*) will be in different genera as a result of their phylogenetic studies. So, setting aside *Musca funebris* in deference to *Drosophila melanogaster* will result in many hundreds of species being displaced from *Drosophila*. This will be a far greater source of instability than that achieved by conserving the combination of a single species.

4. This seems to be a perfect example of an attempt to change nomenclature to fit current taxonomic and phylogenetic thought, when in fact this is not a nomenclatural issue at all. The defining principles of nomenclature are entirely independent of scientific opinions of relationships among taxa.

The underlying principles of nomenclature (see the Code's *Principles* on pp. XIX–XX) should not be disregarded for the convenience of maintaining the taxonomic combination of a single species. The effect of a change in the type species of *Drosophila* for the sake of this single species would potentially cause confusion and

severe instability with regards to all previous works that had used *Drosophila* in the context of its validly designated and recognized type species, *Musca funebris* (also a very common, well known, near cosmopolitan species). The resulting objective synonymy of *Sophophora* under *Drosophila* would leave the taxonomic definition of *Drosophila* (in the sense of *Drosophila funebris*) unstable, with hundreds of species left in limbo. There can be no justification for changing a type species simply to support the results of the most recent phylogenetic study, as this is an entirely different matter from nomenclature. The singular popularity of a species, or the most current phylogenetic hypothesis of its relationships, cannot be deemed reason to force nomenclature to follow it. As science progresses, and more species become critical model organisms, or become better known in a phylogenetic sense, the Code cannot be expected to jump with each new phylogenetic hypothesis. Stability is measured in centuries, not in what is currently in fashion.

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Case 3407 (van der Linde et al., 2007) is a proposal to conserve the binomen *Drosophila melanogaster*. The combination is threatened by revision of the genus *Drosophila*. We agree that the binomen should be preserved and we agree that the genus is large and paraphyletic but we disagree with some of the qualifying arguments. We would prefer that the taxonomy of DROSOPHILIDAE be guided, not driven, by molecular biological data.

We have the view that the Commission should accept this application to conserve the binomen *Drosophila melanogaster* but we strongly believe that the splitting up of the genus, once redefined, should only occur after comprehensive taxonomic investigation, not driven by the latest molecular phylogenetic data. We acknowledge that there is a range of views about how to deal with the various groups of species in *Drosophila* but we feel that there is still much work to be done before the numerous species can be correctly reassigned. We feel that this can proceed more freely, with less constraint, if *melanogaster* is the type of *Drosophila*. We see no reason why *Drosophila* should automatically be subdivided into different genera if the nominal species becomes *melanogaster*.

The genus *Drosophila* is the largest in the family DROSOPHILIDAE. It is divided into a number of subgenera and it also holds many species incertae sedis. *Musca funebris* is the type species of the genus *Drosophila*, and *Drosophila melanogaster* is the type species of the subgenus *Sophophora*. There is widespread agreement that the species currently accommodated in *Sophophora* represent a natural group that could well be removed from *Drosophila* and treated as a genus. Controversy surrounds this action and its consequences because the binomen *Drosophila melanogaster* is by far the most frequently used in all of biological science, and few people want to change it. An alternative is to make *Sophophora* an objective junior synonym of *Drosophila* (by replacing *funebris* with *melanogaster* as type species), thus preserving the binomen *Drosophila melanogaster*. The underlying concept of *Drosophila*, and the family DROSOPHILIDAE, would shift as a result of changing the nominal species of the nominal genus – put simply, the concept of the typical *Drosophila* (and therefore typical drosophilid) would change from *D. funebris* to *D. melanogaster*.

An application (Case 3407) is currently before the Commission to use its plenary powers to set aside all previous type fixations for *Drosophila* Fallén, 1823 and designate *Drosophila melanogaster* Meigen, 1830, as the type species of *Drosophila* Fallén, 1823; etc.

Six qualifications underpin the application; our comments on each are as follows:

1. 'Phylogenetic and molecular studies show that *Drosophila* is paraphyletic and that an assortment of drosophilids lie within it.' We agree that *Drosophila* is paraphyletic and we are confident that with further taxonomic work the genus will decrease in size and become a more natural group. This will require detailed and, unfortunately, prolonged taxonomic work. See, for example, the taxonomic work that led to the widely accepted proposals to remove the subgenera *Scaptodrosophila* Duda, 1923, *Hirtodrosophila* Duda, 1923, *Lordiphosa* Basden, 1961 and *Dichaetophora* Duda, 1940 (Grimaldi, 1990; Hu & Toda, 2002).

2. 'The genus consists of four major clades.' Taxonomically we see a single genus with a wide range of species, we see some clustering of species and we predict that those clusters will eventually be assigned to genera. There are 78 species incertae sedis and there are many species represented only by poorly preserved specimens. The task

is not as simple as dividing the genus in four and elevating the remaining subgenera to the rank of genus.

3. 'The paraphyletic nature of the genus *Drosophila* is unacceptable as it violates modern systematic practice.' The statement may be true for systematics but paraphyly is permitted within our traditional nomenclature. That is not to say that it is desirable. Paraphyly is not a violation of taxonomic practice, it is regarded as suboptimal but it is tolerated until evidence allows better classification.

4. 'The binomen *Sophophora melanogaster* would cause instability and confusion.' We agree, but our discussion on this point led us to appreciate that many of our colleagues do not foresee a problem, which surprised us. If the binomen *S. melanogaster* was introduced, we think that in evolutionary biology and molecular phylogenetics – perhaps yes, there would be instability. In zoological taxonomy – no. In the normal course of taxonomic work, name-changes (new combinations) are commonplace, they are seen for what they are: a response to new and more compelling data.

The binomen *Sophophora melanogaster* would continue to convey a precise meaning, and in this sense there would be no confusion. With respect to nomenclatural instability, there may be considerable reluctance to adopt the unfamiliar binomen *Sophophora melanogaster* and many would, no doubt, continue using *Drosophila melanogaster*, *Drosophila* or just *melanogaster*. And this would be confusing. Information retrieval would be hampered.

Van der Linde et al. argue that many use *Drosophila* as a shorthand or vernacular name for *Drosophila melanogaster* and instability and confusion would result if *melanogaster* was combined with *Sophophora*. The use of a generic name for a species is already an undesirable situation that is not likely to improve or change whatever decision the Commission makes. *Drosophila*, not in italics, is also used as a common name for *Drosophila melanogaster* and other species, but when written in this way – in normal font – it has the same diminished significance as 'fruit fly', 'vinegar fly', 'ferment fly', or 'pumice fly'. Application of these names is unrestricted, haphazard and entirely outside the Code. In the French language, researchers are accustomed to using "les Drosophiles" as a vernacular and this is (and could still be) used for flies in any drosophilid genus.

The question asked above could be reframed 'would changing the type of *Drosophila* cause instability and confusion?' To which we would answer: no. It is a layer of complexity for taxonomists but not for the rest of the scientific community who work with these flies.

For the drosophilid taxonomist the concept of *Drosophila* is based on the original type species *D. funebris* (Fabricius, 1787). Over the last 115 years new species have been placed in *Drosophila* either because they conform to its underlying generic concept based on *D. funebris*, or because no other genus in the DROSOPHILIDAE was available and the cautious or conservative taxonomist chose not to describe a new one. Lamb (1914), for example, when working on a collection from the Seychelles described 20 new drosophilid species placing 18 of them in the genus *Drosophila*; those 18 are now in seven different genera. Unfortunately and inevitably many large families have such 'trash can' genera, so-called because of the untidy assemblage of species they accommodate. *Drosophila* currently accommodates the flotsam and jetsam of the DROSOPHILIDAE and it will take a very long time for each species to be

examined and correctly re-assigned. It is not simply a matter of examining a type specimen and assigning it to a genus.

The removal from *Drosophila* of the large subgenera *Scaptodrosophila*, *Hirtodrosophila* and *Lordiphosa* and the treatment of them as genera (Grimaldi, 1990) was widely accepted. However, his treatment of the Hawaiian drosophilids (many of which were originally placed in *Drosophila*) has met with disagreement and alternative classifications have subsequently been proposed (O'Grady, 2002). We see the process of offering alternate hypotheses and classification schemes as entirely appropriate and we have a strong sense that gradually we are moving towards a more natural classification scheme overall.

In summary, we agree that it is useful to replace *D. funebris* as the type of *Drosophila* in order to preserve the binomen *Drosophila melanogaster*. But we do not think it is appropriate, at this stage, to automatically and without additional comprehensive taxonomic work, remove all major groups of the newly defined genus.

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Comments on the proposed suppression of *Gobius lagocephalus* Pallas, 1770 (Osteichthyes, Teleostei, GOBIIDAE)

(Case 3383; see BZN **64**: 103–107, BZN **65**: 57–60)

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As I am working on Indo-Pacific fishes, I disagree with the proposed suppression of the name *Gobius lagocephalus* and I agree with Kottelat, Larson, Watson & Keith's proposal to retain the present usage.

(2) Rohan Pethiyagoda

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I work on the taxonomy of Indo-Pacific fishes. I disagree with the proposal to suppress this name and support retention of existing usage. The name *lagocephalus* Pallas, 1770, as published in the binomen *Gobius lagocephalus*, should be placed on the Official List of Available Names in Zoology.

(3) Zeehan Jaafar

Department of Biological Sciences, 14 Science Drive 4, National University of Singapore, Singapore 111543 (e-mail: dbszj@nus.edu.sg)

I am working on Indo-Pacific gobies and having followed the various publications, I agree with Kottelat, Larson, Watson & Keith's (BZN 65: 57–60) proposal to retain the present usage of the name *Gobius lagocephalus*.

(4) Peter K.L. Ng

Department of Biological Sciences, National University of Singapore, 10 Kent Ridge Crescent, Singapore 119260 (e-mail: peterng@nus.edu.sg)

I admit I have to concur with Kottelat's (BZN 65: 57–60) views. The case for suppression is not necessary and would actually cause more problems. His prior designation of a neotype has solved the problem and the name is now therefore stable. I would not support the argument of Smith & Sparks (2007) in this context.

(5) Patrick Berrebi

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Equipe Génétique et Environnement / Métapopulations, Conservation et
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34095 Montpellier Cedex 5, France (e-mail: berrebi@univ-montp2.fr)*

I am working on Indo-Pacific fishes. I disagree with the proposed suppression of the name *Gobius lagocephalus* and I agree with Kottelat, Larson, Watson & Keith's (BZN 65: 57–60) proposal to retain the present usage.

OPINION 2197 (Case 3341)***Cardium egmontianum* Shuttleworth, 1856 (currently *Trachycardium egmontianum*; Mollusca, Bivalvia, CARDIIDAE): current usage conserved**

Abstract. The Commission has ruled that the current usage of the specific name *egmontianum* for a common and widespread western Atlantic bivalve *Trachycardium egmontianum* (Shuttleworth, 1856) of the family CARDIIDAE is conserved by setting aside all lectotype designations for *Cardium mindanense* Reeve, 1844 prior to that by Vidal (1998).

Keywords. Nomenclature; taxonomy; Mollusca; Bivalvia; CARDIIDAE; *Trachycardium*; *Cardium mindanense*; *Cardium egmontianum*.

Ruling

- (1) Under the plenary power it is hereby ruled that all lectotype designations for *Cardium mindanense* Reeve, 1844 prior to that by Vidal (1998) are set aside.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *mindanense* Reeve, 1844, as published in the binomen *Cardium mindanense* and as defined by the lectotype designated by Vidal (1998);
 - (b) *egmontianum* Shuttleworth, 1856, as published in the binomen *Cardium egmontianum*.

History of Case 3341

An application to conserve the usage of the specific name of *Cardium egmontianum* Shuttleworth, 1856 was received from Harry G. Lee (*Jacksonville, FL, U.S.A.*) and Richard E. Petit (*North Myrtle Beach, SC, U.S.A.*) on 2 March 2005. This requested setting aside a lectotype designation by Voskuil & Onverwagt (1992) that made *Cardium mindanense* a senior synonym of *C. egmontianum* and removing the name *C. mindanense* from usage for an Indo-Pacific species. After correspondence the case was published in BZN **64**: 12–14 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. One supportive comment on this case was published in BZN **64**(3): 185.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN **64**: 14. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 16: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Halliday, Krell, Kullander, Lamas, Mawatari, Pape, Papp, Patterson, Rosenberg, van Tol and Zhang.

Negative votes – 4: Grygier, Kottelat, Ng and Štys.

No vote was received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Voting against, Grygier commented that if the ‘type designation’ of Voskuil & Onverwagt was not valid (as certainly appears to be the case), then there was no reason to invoke the plenary power, which pertains to suspension of the application of some provision of the Code (Article 78.1). He says that in this application the applicant simply wants the Commission to declare the type designation in question not valid ‘to remove any question’. This should be done under the specific power to ‘interpret or apply the provisions of the Code to any question of zoological nomenclature’ granted to the Commission by Article 78.2.3, not under the plenary power. He suggested that following the vote, an Opinion of the sort described in Article 80.2.1 should be issued. Kottelat concurs, saying that although he has not been able to examine the original description and the ‘lectotype’ designation, the way the application describes the ‘lectotype’ designation by Voskuil & Onverwagt makes it clear that it is not a lectotype designation and that the lectotype designation by Vidal is valid. Therefore no decision by the Commission is needed and the use of plenary powers is not justified. Ng had similar sentiments, saying that while it may be argued that this case pertains to interpretation of what Voskuil & Onverwagt actually did, the arguments suggest that the supposed lectotype designation was invalid and was made as a passing comment. As the Code stands, this lectotype designation has no validity and as such, this case is unnecessary. Štys brings a similar set of observations, saying that Lee & Petit’s solution to the situation is of course correct. However, he does not see any reason to invoke plenary power for cases in which normal application of the Code is sufficient. Voskuil & Onverwagt’s (1992) designation of holotype for *Cardium mindanense* was invalid (Article 73.1.3) and was insufficient for fixation of a lectotype by inference of a ‘holotype’ (Article 74.6).

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

mindanense, *Cardium*, Reeve, 1844, *Conchologia Iconica*, vol. 2. Pl. 4, fig. 19.

egmontianum, *Cardium*, Shuttleworth, 1856, *Journal de Conchyliologie*, **5**: 172–173.

The following is the reference for the designation of the lectotype for *Cardium mindanense* Reeve, 1844:

Vidal, J. 1998. *Apex*, **13**: 115.

OPINION 2198 (Case 3378)***Phyllomorpha* Laporte, 1833 (Insecta, Heteroptera): spelling and existing usage conserved**

Abstract. The Commission has ruled that the spelling and current usage of the generic name *Phyllomorpha* Laporte, 1833 is conserved. The generic name has been used consistently for a genus of coreidid heteropterans found in Southern Europe, North Africa and the western part of Asia to Pakistan, although it is an incorrect spelling of the generic name *Phyllomorphus* Laporte 1833. *Coreus hystrix* Latreille 1817 is designated as the type species, with all fixations of type species before Reuter (1888) set aside.

Keywords. Nomenclature; taxonomy; Insecta; Heteroptera; COREIDAE; *Phyllomorphus*; *Phyllomorpha*; *Phyllomorpha laciniata*; *Coreus hystrix*; southern Europe; North Africa; western Asia.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the first reviser action by Burmeister (1835) to select *Phyllomorphus* as the correct original spelling is set aside and *Phyllomorpha* Laporte, 1833 is the correct original spelling;
 - (b) all previous fixations of type species for the nominal genus *Phyllomorpha* Laporte, 1833, before the designation by Reuter (1888) of *Coreus hystrix* Latreille, 1817, are set aside.
- (2) The name *Phyllomorpha* Laporte, 1833 (gender: feminine), type species by subsequent designation by Reuter (1888) *Coreus hystrix* Latreille, 1817 (junior subjective synonym of *Cimex laciniatus* Villers, 1789), as ruled in (1)(b) above, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *laciniatus* Villers, 1789, as published in the binomen *Cimex laciniatus* (senior subjective synonym of *Coreus hystrix* Latreille, 1817, the specific name of the type species of the genus *Phyllomorpha* Laporte, 1833), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Phyllomorphus* Laporte, 1833 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology, as set aside as the incorrect original spelling in (1)(a) above.

History of Case 3378

An application to conserve the spelling of the name *Phyllomorpha* Laporte, 1833 and to validate the designation by Reuter (1888) of *Coreus hystrix* Latreille, 1817 as the type species, was received from I.M. Kerzhner (Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia) on 8 August 2006. This required setting aside the first reviser action by Burmeister (1835) and setting aside all type species fixations for *Phyllomorpha* Laporte, 1833 prior to that by Reuter (1888) of *Coreus hystrix* Latreille, 1817 as the type species. After correspondence the case was

published in BZN **64**: 25–28 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. Notice of the case was sent to appropriate journals. No comments on this case were received.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN **64**: 26. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 20: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Ng, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No vote was received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

laciniatus, Coreus, Villers, 1789, *Caroli Linnaei entomologia, faunae Sueciae descriptionibus aucta*, DD. Scopoli, Geoffroy, de Geer, Fabricii, Schrank etc. speciebus vel in systemate non enumeratis, vel nuperrime detectis, vël speciebus Galliae Australis locupleta, generum specierumque rariorum iconibus ornate, **1**. P. 493. Piestre & Delamolliere, Lugduni [=Lyon].

Phyllomorpha Laporte, 1833. *Magasin de Zoologie*, **2**, suppl.: 47.

Phyllomorphus Laporte, 1833. *Magasin de Zoologie*, **2**, suppl.: 41.

The following is the reference for the designation of *Coreus hystrix* Latreille, 1817 as the type species of the nominal genus *Phyllomorpha* Laporte, 1833:

Reuter, O.M. 1888. *Revisio synonymica Heteropterorum Palaearcticorum quae descripserunt auctores vetustiores (Linnaeus 1758 – Latreille 1806)*. 458 pp. [I: 1 – 73; II: 74 – 485]. Finnische Literatur-Gesellschaft, Helsingfors [also published in: *Acta Societatis Scientiarum Fennicae*, **15** (1888)]: 411.

OPINION 2199 (Case 3369)***Bothynus* Hope, 1837 (Insecta, Coleoptera, SCARABAEIDAE): usage conserved by designation of *Scarabaeus ascanius* Kirby, 1819 as the type species**

Abstract. The Commission has ruled that the current usage of the generic name *Bothynus* Hope, 1837 for well-known scarab beetles of the family SCARABAEIDAE (subfamily DYNASTINAE) is conserved by the designation of *Scarabaeus ascanius* Kirby, 1819 as the type species. The original type species of *Bothynus* was *Geotrupes cuniculus* Fabricius, 1801, but was based on a misidentification. The designation of *S. ascanius* Kirby, 1819 as the type species was proposed by Lacordaire in 1856, but, although this was adopted by most taxonomists, this was not valid under the Code.

Keywords. Nomenclature; taxonomy; Insecta; Coleoptera; SCARABAEIDAE; DYNASTINAE; PENTODONTINI; *Bothynus*; *Scarabaeus ascanius*.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Bothynus* Hope, 1837 before the designation by Lacordaire (1856) of *Scarabaeus ascanius* Kirby, 1819, are set aside.
- (2) The name *Bothynus* Hope, 1837 (gender: masculine), type species by subsequent designation by Lacordaire (1856) *Scarabaeus ascanius* Kirby, 1819, as ruled in (1) above, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *ascanius* Kirby, 1819, as published in the binomen *Scarabaeus ascanius* (specific name of the type species of *Bothynus* Hope, 1837), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3369

An application for the conservation of usage of the name *Bothynus* Hope, 1837 and the validation of the designation by Lacordaire (1856) of *Scarabaeus ascanius* Kirby, 1819 as the type species, was received from Brett C. Ratcliffe (*University of Nebraska State Museum, Lincoln, NE, U.S.A.*) and Andrew B.T. Smith (*Canadian Museum of Nature, Ottawa, Canada*) on 9 November 2005. This required setting aside the type species *Geotrupes cuniculus* Fabricius, 1801, designated by Hope, 1837, and validation of the designation by Lacordaire (1856) of *Scarabaeus ascanius* Kirby, 1819 as the type species. After correspondence the case was published in BZN **64**: 29–31 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN **64**: 30. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 20: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Ng, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No vote was received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Bothynus Hope, 1837, *The Coleopterists' Manual, Containing the Lamellicorn Insects of Linneus and Fabricius*, p. 95.

ascanius, *Scarabaeus*, Kirby, 1819, *Transactions of the Linnean Society of London*, **12**: 399.

The following is the reference for the designation of *Scarabaeus ascanius* Kirby, 1819 as the type species of the genus *Bothynus* Hope, 1837:

Lacordaire, J.T. 1856. *Histoire Naturelle des Insectes. Genera de Coléoptères ou Exposé Methodique et Critique de Tous les Genres proposes jusqu'ici dans cet Ordre d'Insectes*, vol. 3, p. 413.

OPINION 2200 (Case 3374)***Onthophagus sycophanta* Fairmaire, 1887 (Insecta, Coleoptera, SCARABAEIDAE): specific name conserved**

Abstract. The Commission has ruled that the specific name *Onthophagus sycophanta* Fairmaire, 1887 for a dung beetle found throughout Vietnam and China is conserved by suppressing its senior primary homonym *Onthophagus sycophanta* Mulsant, 1842.

Keywords. Nomenclature; taxonomy; Coleoptera; SCARABAEIDAE; *Onthophagus*; *Onthophagus sycophanta*; dung beetles; China; Vietnam.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *sycophanta* Mulsant, 1842, as published in the binomen *Onthophagus sycophanta*, and all uses of the name before Fairmaire (1887) are suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.
- (2) The name *sycophanta* Fairmaire, 1887, as published in the binomen *Onthophagus sycophanta* is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *sycophanta* Mulsant, 1842, as published in the binomen *Onthophagus sycophanta* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3374

An application to conserve the specific name *Onthophagus sycophanta* Fairmaire, 1887 for a dung beetle found throughout Vietnam and China was received from Frank-Thorsten Krell (*Denver Museum of Nature & Science, CO, U.S.A.*) on 27 February 2006. This requested suppressing the name *Onthophagus sycophanta* Mulsant, 1842, which had not been used as a valid name after its introduction even by the author himself. The name *O. sycophanta* Fairmaire, 1887 has been in regular use. After correspondence the case was published in BZN 64: 32–34 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN 64: 33. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 18: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Lamas, Mawatari, Ng, Pape, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – 2: Kullander and Papp.

No vote was received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Voting against, Kullander commented that the Principle of Priority should be maintained in this case.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

- sycophanta*, *Onthophagus*, Fairmaire, 1887, *Annales de la Société Entomologique de Belgique*, **31**: 100.
sycophanta, *Onthophagus*, Mulsant, 1842, *Histoire Naturelle des Coléoptères de France. Lamellicornes*, p. 106.

OPINION 2201 (Case 3352)***Productus compressus* Waagen, 1884 (currently *Compressoproductus compressus*; Brachiopoda): specific name not conserved**

Abstract. An application to conserve the specific name *Productus compressus* Waagen, 1884 for the type species of the Permian brachiopod genus *Compressoproductus* Sarytcheva in Sarytcheva et al., 1960 by suppression of *Productus compressus* Say in James, 1823 has not been approved.

Keywords. Nomenclature; taxonomy; Brachiopoda; *Productus*; *Compressoproductus*; *Compressoproductus compressus*; *Compressoproductus morahpressus*; Permian.

Ruling

- (1) It is hereby ruled that the application for the proposed conservation of *Productus compressus* Waagen, 1884 is not approved.
- (2) No names are placed on the Official Lists or Indexes in this ruling.

History of Case 3352

An application to conserve the specific name *Productus compressus* Waagen, 1884 for the type species of the Permian brachiopod genus *Compressoproductus* Sarytcheva in Sarytcheva et al., 1960 by suppression of *Productus compressus* Say in James, 1823 was received from Masatoshi Sone (*University of New England, Armidale, Australia & Niigata University, Niigata, Japan*) on 5 May 2005. After correspondence the case was published in BZN 63: 255–258 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 256. At the close of the voting period on 1 December 2007 the votes were as follows:

Affirmative votes – 7: Alonso-Zarazaga, Brothers, Halliday, Kullander, Mahnert, Mawatari and Papp.

Negative votes – 15: Bogutskaya, Bouchet, Fautin, Grygier, Kerzhner, Kottelat, Krell, Lamas, Lim, Pape, Patterson, Rosenberg, Stys, van Tol and Zhang.

Minelli, Ng and Pyle were on leave of absence.

Voting against, Kerzhner commented that both valid and invalid names could be cited as senior homonyms and such citations did not necessarily constitute their usage as a valid name and did not provide an obstacle to the application of Article 23.9.1.1 of the Code.

No names are placed on the Official Lists or Indexes in this ruling.

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30 September 2008

Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be sent by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 65, part 2, 30 June 2008) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3467: ZOSIMIDAE Seifried, 2003 (Crustacea, Copepoda): proposed emendation of spelling to remove homonymy. R. Huys & P.F. Clark.

CASE 3468: *Heteroneura* Fallén, 1823 (Insecta, Diptera): proposed conservation of usage by fixation of *Heteroneura albimana* Meigen, 1830 as type species. O. Lonsdale.

CASE 3469: *Lingula* Bruguière 1797 (Brachiopoda): proposed correction of the date of publication to 1791. C.C. Emig.

CASE 3470: *Halectinosoma* Vervoort, 1962 (Crustacea, Copepoda): proposed conservation of usage by suppression of *Pararenosetella* Lang, 1944. R. Huys.

CASE 3471: *Heterolaophonte* Lang, 1948 (Crustacea, Copepoda): proposed conservation of usage by suppression of *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941. R. Huys.

CASE 3472: *Cetiosaurus* Owen, 1841 (Dinosauria, Sauropoda): proposed conservation of usage by designation of *Cetiosaurus oxoniensis* Phillips, 1871 as type species, and proposed precedence of *Pelorosaurus conybeari* Mantell, 1850 over *Cetiosaurus brevis* Owen, 1842. P. Upchurch.

CASE 3473: *Conops testacea* Linnaeus, 1767 (Insecta, Diptera): proposed conservation of usage by designation of a neotype. D.K. Clements, J.-H. Stuke & P.J. Chandler.

CASE 3474: *Aplonis* Gould, 1836 (Aves, STURNIDAE): proposed conservation of spelling. R. Schodde & W.J. Bock.

CASE 3475: *Myrmarachne* MacLeay, 1839 (Arachnida, Araneae): proposed conservation of the generic name. J.A. Dunlop & D. Penney.

Members of ICZN council

The current members of the Council of the ICZN are Dr D. Brothers (President), Dr M. Alonso-Zarazaga, Prof. P. Bouchet, Dr R. Pyle, Dr G. Rosenberg. The position of Vice President is vacant.

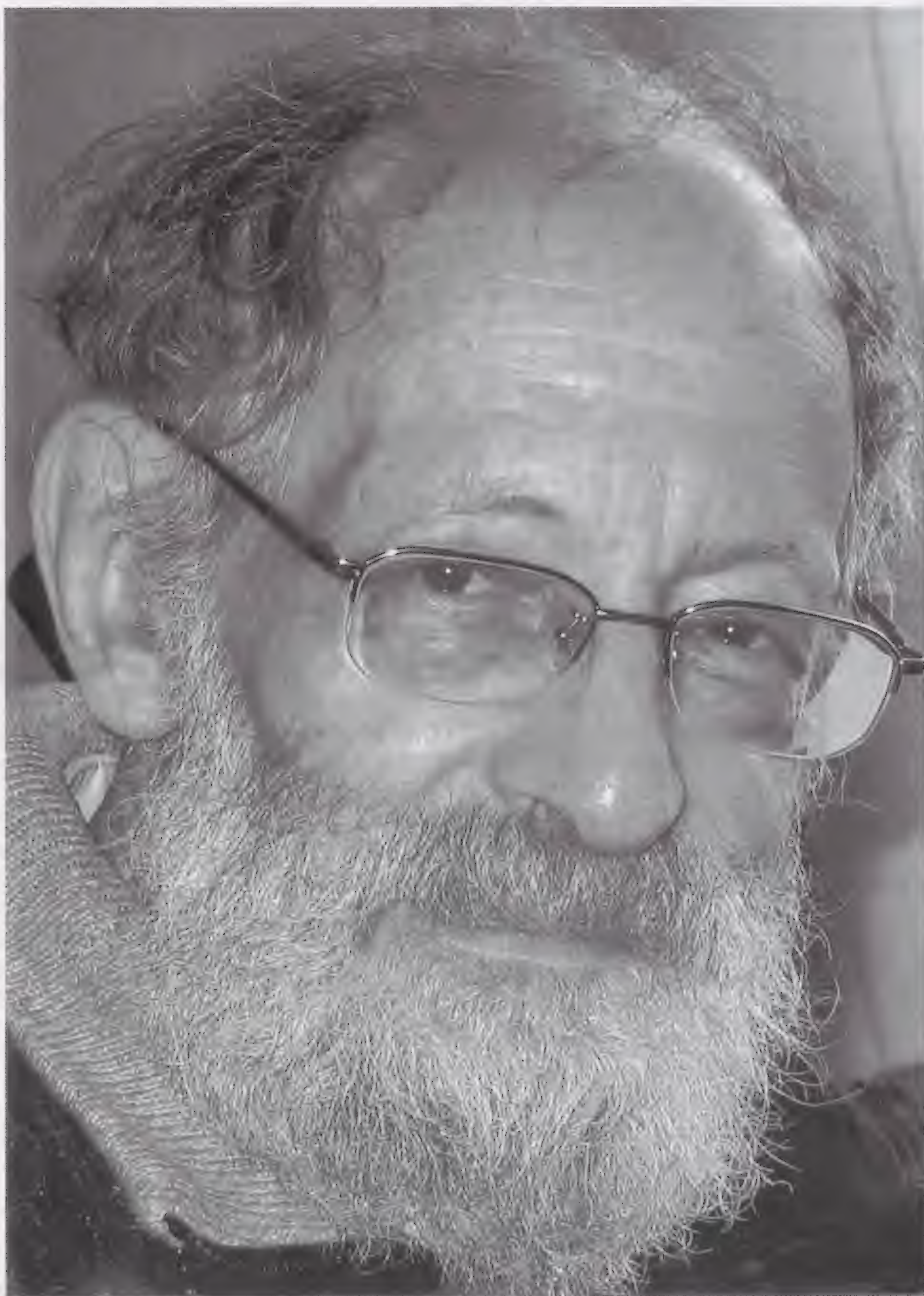
Izyaslav Moiseyevich Kerzhner – Commissioner 1996–2008, entomologist, Professor and Chief Researcher of the Zoological Institute of the Russian Academy of Sciences

Izyaslav (Izya) Moiseyevich Kerzhner, a Commissioner of the International Commission on Zoological Nomenclature since 1996, died on 29 May 2008 at the age of 72 in St. Petersburg. Prof. Kerzhner was a leading taxonomist and world specialist on Hemiptera and a Chief Researcher of the Zoological Institute of the Russian Academy of Sciences. He was among the leading lights in zoological nomenclature, providing insight into challenging nomenclatural puzzles and participating in international debates on the Code right up until the time of his death.

Izyaslav Moiseyevich loved insects and mathematics from early childhood. In 1953 he enrolled in Kishinev University, but unfortunately their Department of Entomology closed shortly thereafter. He managed to move to Leningrad – a very difficult feat at that time – where he became a student at the Department of Entomology of the Leningrad State University and studied under the famous Professor A.S. Danilevsky, then Head of Department. It was Danilevsky who suggested that Izyaslav Moiseyevich study the systematics of Hemiptera; the study of the suborder Heteroptera remained the primary focus of all his scientific activities and the central objective of his life. After graduation in 1958 Izyaslav Moiseyevich was employed at the Zoological Institute of the Russian Academy of Sciences and started work under the supervision of Professor A.N. Kiritshenko. He soon became a recognised expert, and contributed the Heteroptera section to the *Key for the Identification of Insects of the European USSR*, which was a huge, multi-volume project that lasted several decades. In 1965 Izyaslav Moiseyevich defended his Ph.D. thesis on predatory Heteroptera of the family NABIDAE (damselfly bugs) of the USSR. He was skilled in the taxonomy and identification of most of the Palearctic Heteroptera fauna, and considerably improved the scientific understanding of MIRIDAE, PENTATOMIDAE, COREIDAE and many other families; however he continued to work on the NABIDAE of the world throughout his whole career.

In 1990 Izyaslav Moiseyevich obtained the degree of Doctor of Sciences (a prestigious higher second doctorate) with his book ‘Heteroptera of the family NABIDAE of the world’, a major contribution to the systematics, zoogeography, biology and morphology of damselfly bugs.

The scientific interests of Izyaslav Moiseyevich were extraordinarily wide. Like his scientific supervisor A.N. Kiritshenko, he became an expert on the history of entomology and zoology in general, and he had a nuanced perspective of the history of scientific work on the Russian fauna. He provided an extremely useful review of the history of the investigation of the fauna of Mongolia in the first volume of the *Insects of Mongolia*. He also developed a deep knowledge of the entomological literature; library activities played an important role in Izyaslav Moiseyevich’s work. His expertise was recognised by the staff of the scientific library of the Zoological Institute of the Russian Academy of Sciences, where he was an indispensable adviser on the subject of dates of publication of rare books and papers. Even during his last illness Izyaslav Moiseyevich regularly came to the Institute’s library with colleagues to resolve bibliographic problems. He had a strong sense of order, and an



I.M. Kerzhner
1936–2008

Photo kindly supplied by K.G. Mikhailov.

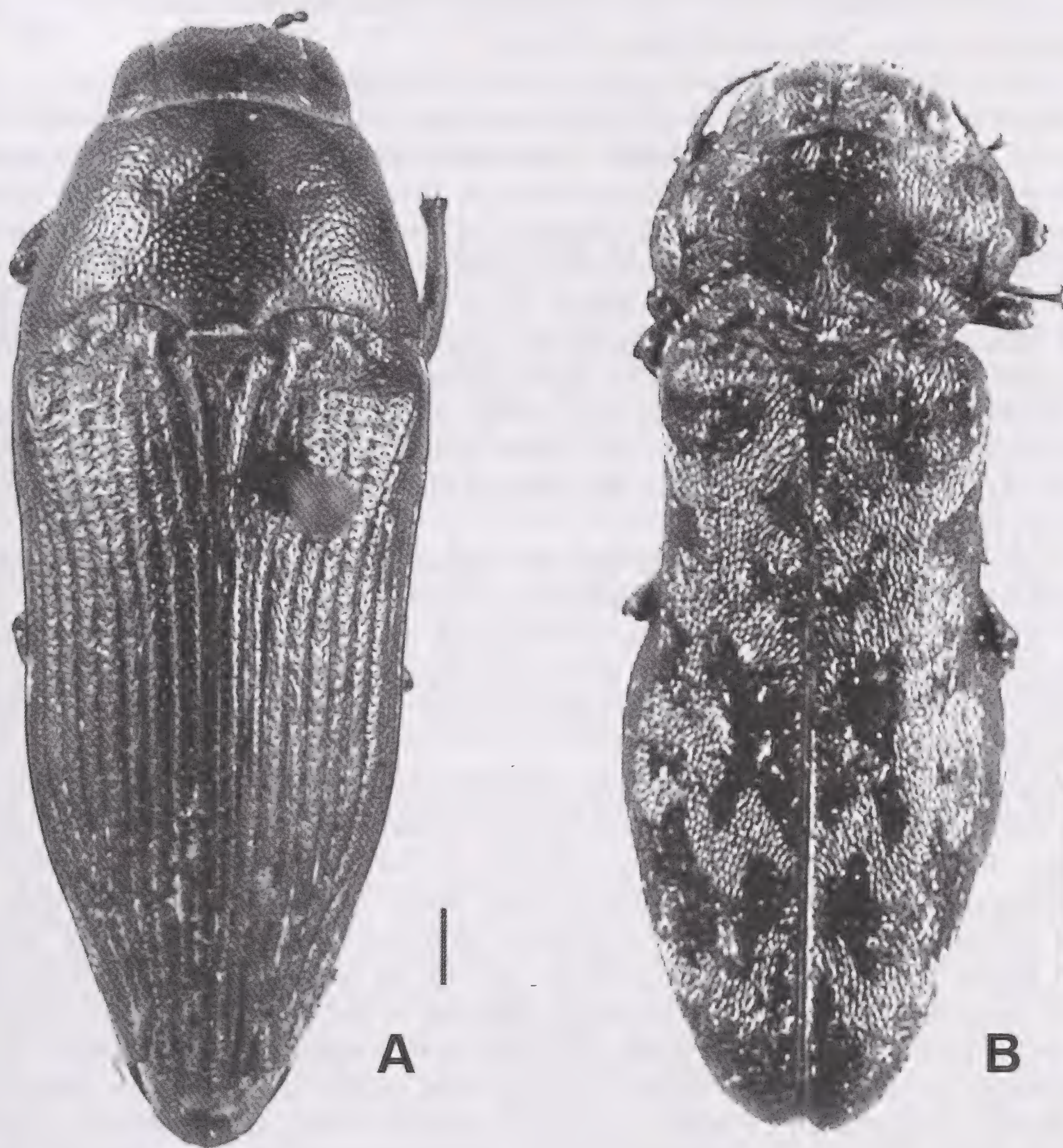


Fig. 1. A. Two of more than 115 insects named after I.M. Kerzhner. *Sphenoptera* (*Chrysoblemma*) *kerzhneri* Volkovitsh & Kalashian, 2001, holotype, Kazakhstan (Kzyl-Orda), ZIN, St. Petersburg. **B.** *Neotoxoscelus kerzhneri* (Alexeev, 1975) (described as *Cryptodactylus* (*Paracryptodactylus*) *kerzhneri*), paratype, Mongolia, leg. I. Kerzhner, ZIN, St. Petersburg. Scale bar=1 mm. Photo by M.G. Volkovitsh.

overwhelming desire to see tasks, once commenced, through to completion. For example, he could spend days and months meticulously deciphering illegible specimen labels. These qualities made Izyaslav Moiseyevich an outstanding nomenclaturist. As a Commissioner of the ICZN, he relished the challenge of nomenclatural puzzles, and through his dedication and energy solved a vast number of problems concerning the nomenclature of many groups of animals, not only his beloved Heteroptera. He translated two editions of the International Code of Zoological Nomenclature into Russian, an immense contribution to the development of taxonomy and systematics in countries with Cyrillic-based languages. His linguistic

skills were remarkable; he knew Latin and Greek, English, German and French, and could read Italian, Spanish and basic Chinese!

Izyaslav Moiseyevich also advanced the field of taxonomy with his dedication to editorial work. It was mostly through his efforts that the eleven collected volumes of *Insects of Mongolia* were published over many years. He was a founder and Editor-in-Chief of the journal *Zoosystematica Rossica*, which became the only Russian journal specialising in the taxonomy of animals. His editorial role earned him tremendous respect all over the former USSR for his readiness to help colleagues to prepare and publish taxonomic works. In all his work, scientific, nomenclatural and editorial, he demanded of himself the highest standards, but he was never pedantic and did not judge others by these rigorous criteria.

Izyaslav Moiseyevich was also a very skilled insect collector. He participated in numerous expeditions throughout the USSR and Mongolia, and further afield to Cuba, Mexico, the USA, and Israel. He collected extensive and rare material of many insect orders.

Izyaslav Moiseyevich's work with scientific organisations was multifaceted. He was a member of the Scientific Council and Library Council of the Zoological Institute of the Russian Academy of Sciences, the Council and Presidium of the Russian Entomological Society, a member of the International Hemipterists' Society, an Honorary Member of the Russian Entomological Society and of the Hungarian Entomological Society.

Izyaslav Moiseyevich's activities and achievements are too many to list, and one can only admire his high level of professionalism and his multitude of accomplishments. In all that Izyaslav Moiseyevich did, his strictly logical frame of mind, excellent memory, outstanding linguistic ability, broad outlook, remarkable honesty, and extraordinary efficiency shone through. Everyone who was acquainted with him knows that he devoted much of his time to his colleagues, helping them in their research, assisting them in resolving questions of zoological nomenclature and editing scientific editions. The many colleagues who sought his advice, whether on taxonomic or nomenclatural matters, received deep, careful and exhaustive answers.

Izyaslav Moiseyevich's everyday work as a scientific editor, and his generous and expert advice on taxonomy, nomenclature and entomological literature brought him deep respect and gratitude. He was a person of rare talent, generosity, fidelity to principle, and selflessness. His death is an irreparable loss to entomology, nomenclature, and to everyone who knew him closely. The memory of Izyaslav Moiseyevich Kerzhner will always live in our hearts.

Alexander F. Emeljanov, Gleb S. Medvedev, Nina G. Bogutskaya,
Boris A. Korotyaev

(*Zoological Institute of the Russian Academy of Sciences*)

A paper in Russian and in English celebrating Izyaslav Moiseyevich Kerzhner's 70th anniversary, with a list of publications, was published in the *Russian Entomological Journal*, 2006, **15**(2): 109–120.

Taxonomy returns: the first meeting on zoological nomenclature in Japan

Shunsuke F. Mawatari

Hokkaido University, Sapporo, Japan

The recent G8 Summit (7–9 July 2008 at Toyako, Hokkaido) provided a tremendous opportunity to foster discussion on realising an ecologically sustainable society, including a two-day symposium on nomenclature and taxonomy. Hokkaido University (HU), one of the major state universities in Japan, hosted a series of events as part of ‘Sustainability Weeks 2008’ (<http://www.sustain.hokudai.ac.jp/sw2008/english/weeks/index.html>). Researchers, educators, students and citizens from around the globe assembled in Hokkaido, shared their wisdom, and took a step forward towards the future. One of these events, an international symposium on zoological nomenclature entitled ‘Taxonomy Returns,’ held on 28 and 29 June at the Hokkaido University Museum, Sapporo, Japan, was organised by an Asian commissioner of ICZN, Shunsuke F. Mawatari, with financial support from HU (<http://museum-sv.museum.hokudai.ac.jp/activity/symposium/symposium23/>). The symposium was named for two popular Hollywood movies, ‘Batman Returns’ and ‘Superman Returns,’ and like the movies it was a great success. This was the first opportunity for Japanese taxonomists to attend an international meeting on zoological nomenclature in their own country, and participants were fortunate to have Dr Denis Brothers, President of the ICZN, as the main speaker.

On the first day of the symposium, Hiroshi Kajihara (HU) chaired a session entitled ‘Naming Organisms’ aimed at Japanese students, amateurs, specialists and the public alike. In the keynote speech in English with simultaneous translation into Japanese, Dr Brothers explained in clear terms the Zoological Code and the basic mechanism for naming species. Four Japanese biologists then gave presentations in Japanese. Teruaki Nishikawa, Nagoya University Museum, spoke on some problems with the current Zoological Code. Masanori Toda of HU’s Low Temperature Institute asked the audience to consider whether a long-used scientific name should be changed, discussing as an example the case of *Drosophila melanogaster* (Linde et al., Case 3407, Bull. Zool. Nom. 64(4), December 2007: 238–242). Jun-ichi Kojima, an insect specialist from Ibaraki University, objected to a proposal to simplify the placement of new taxa at ranks above or below the species, which may result in reduction of the biological information contained in a classification system. The last speaker, Hideki Nakagawa, a botanist and one of the Japanese translators of the current International Code of Botanical Nomenclature (Vienna Code), outlined its history and explained some new concepts, giving several examples.

The second day comprised a session in English entitled ‘Toward the Future Development of Zoological Nomenclature,’ aimed at specialists in zoological taxonomy. In the first presentation, Denis Brothers spoke on ‘ZooBank and the Next Edition of the Zoological Code.’ The second speaker was Jun-ichi Kojima, Ibaraki University, who proposed a means of ensuring that the nomenclatural codes better communicate biological information and stabilise concepts of informal taxa. The final speaker, Shunsuke F. Mawatari, proposed a simpler way of naming organisms

by skipping the species epithet. He stressed that although his suggestion is so radical that most taxonomists would find it difficult to accept, it provides a basis for discussion on how to streamline complete taxonomic names, increase the citation rate of taxonomists and the citation index of taxonomic journals, and improve both the perceived status of taxonomists and support for taxonomy, an endeavour fundamental to all other branches of biology.

After the formal session, all participants gathered in a round-table forum to discuss the web-registration system expected to be introduced in the next Code. Denis Brothers presented three possible scenarios for the system: Scenario 1, Publication+Registration=Availability (*ZooBank Technical Article*, pp. 3–5); Scenario 2, Registration=Availability (*ZooBank Technical Article*, pp. 5–9); and Scenario 3, Registration=Publication=Availability (*Doug Yanega Post to ZooBank List*, 22 Sept. 2005). When Denis Brothers asked the participants to indicate their choice, astoundingly most preferred Scenario 3, with almost as many preferring Scenario 1. The audience saw the issues of registration and the development of ZooBank as fundamental and relevant. It will be interesting to see how the preferences of Japanese taxonomists are reflected in the opinions of the rest of the global taxonomic community and thus in development of an official web registration system.

Updating the Linnaean Heritage: names as tools for thinking about animals and plants

Gina Douglas

The Linnean Society of London, London, U.K.

On 29 and 30 May 2008, the University of Padua, Italy and the Linnean Society of London held an international two-day meeting in Padua to discuss the continuing importance of nomenclature in communicating science, 250 years after the publication of Linnaeus' 10th edition of *Systema Naturae*.

The first session was held in the historic building of the Accademia Galileiana di Scienze Lettere ed Arti in Padova [The Galileiana Academy of Arts and Science in Padua], with its newly-restored frescoed walls presenting a backdrop to the Welcome Address given by the President of the Academy, Professor Oddone Longo. Professor Longo outlined the history of the Academy and its links to 43 renowned botanists and other natural historians, including Allioni, a correspondent of Linnaeus, and Buffon. The Acting Executive Secretary of the Linnean Society, Ms Gina Douglas, responded with greetings from the Linnean Society and conveyed the regrets of its President, Professor David Cutler, who was unable to be present. The President of the Academy presented the Linnean Society with the Accademia Galileiana's 400th Anniversary Medal, which Ms Douglas received on behalf of the Society, thanking him and the Academy for both their gift and their hospitality, promising to convey the medal safely to the President of the Linnean Society.

Session 1: Present and future of Linnaean Names

Professor Alessandro Minelli opened the formal presentations by welcoming delegates and sketching in the background to the present meeting, which arose from discussions after the 2007 joint meeting with the Royal Society on the evolution of animals. This was held as part of the Linnaean Tercentenary and was linked to the celebration of the publication of the 10th edition of *Systema Naturae* in 1758 and the beginning of the Code for Zoological Nomenclature. He outlined Padua's historic links with taxonomy through the oldest extant botanic garden, dating from 1545, visited by Pierre Belon in 1553, and its Prefects, such as Pontedera, Marsili and Alpinus. Other significant figures were Antonio Vallisneri Jr., the first professor to have a Chair in Natural History at the University of Padua, and Giovanni Canestrini, the first zoology professor in Padua, and also first translator of Darwin's major works into Italian.

Professor Minelli identified the purpose of the meeting as a discussion of the ways in which names continued to play a key role in biological identification but supra specific identification and equivalent status of different ranks and classes across taxa were often unclear. He called on Gina Douglas to chair the session and she invited the first speaker, Professor Otto Kraus from Hamburg, a former President of the International Commission on Zoological Nomenclature, to speak on 'The Linnaean foundations of zoological and botanical nomenclature'. After this comprehensive review of the history of codes of nomenclature, including discussion on problems of synonyms and homonyms and on cladistic and phylogenetic approaches, Professor

Kraus concluded by pointing out that nomenclature and classification were two different concepts and that, with the magnitude of the task still remaining, use of the existing codes was the only practical way forward.

Following questions and discussion, Ms Douglas asked the next speaker, Dr Ellinor Michel, from the ICZN, London, to speak on 'Registering animal names – problems and strategies'. Dr Michel outlined the development of a web-based registry of names in ZooBank, highlighting possible solutions for quality control of data accuracy and the logistical challenges of registering millions of animal names. She underscored the difference between taxonomy and nomenclature, with the link between the two formed by the type specimen. In discussion, Professor Alain Dubois, from Paris, questioned whether a web-based tool is adequately accessible to all taxonomists, especially in 'countries of the south', and Professor Werner Greuter, from Berlin, commented on his experience with registration from a botanical point of view. In a coordinated talk, the next speaker, Dr Richard Pyle, from Honolulu, elaborated further on 'ZooBank: the official registry of zoological names'. He identified the four major elements underlying the register of names: 1) nomenclatural acts (e.g. new species, lectotypification, creation of higher rank names and new combinations), 2) publications, 3) authors of publications and 4) type specimen information (with the potential to crosslink to museum collections). He identified the alternative scenarios for registration and how this could be related to the availability of zoological names. He emphasised that the zoological community has the opportunity and responsibility to communicate their preferences for the future role of ZooBank and nomenclatural registration, as the plan for the future is currently being developed. He also presented technical aspects of how a web-registry works, stressing that the apparently complex Global Unique Identifiers were designed to be read by computers, not people, but were permanent and unambiguous and could be generated locally.

The session ended with the last speaker of the morning, Professor Greuter, presenting 'Botanical nomenclature: the Linnaean heritage today'. He reviewed the historical foundations of nomenclature from its Aristotelian origins and necessities arising after the death of Linnaeus. He discussed attempts to produce a unified code, including one in Esperanto, the draft BioCode feasibility study and the chaos which would result from the Phylocode. Like the first speaker he saw proper application of the existing codes as the way forward, with registration of names offering one potential solution. A wide-ranging discussion ended the morning session.

Session 2: Phylogenetic hypotheses and the names for higher taxa

The second session was held in the lecture theatre at the Orto Botanico [The Botanic Garden], with Dr Daniel Goujet from Paris in the Chair. He called on Professor Dubois to speak on 'Phylogenetic hypotheses and nomina of taxa'. Professor Dubois gave a comprehensive account of the underlying philosophy governing the hierarchy of taxa and the nominal series underlying the various codes of nomenclature, commenting that nomenclature itself is just a tool of taxonomy. He stressed the need for the rules to be theory-free, thus excluding cladistic systems. He concluded by identifying ways in which taxonomic categories might be used for quantitative analysis, addressing the 'taxonomic impediment' and the ongoing biodiversity crisis.

After a short but vigorous discussion on terminology, the chairman called on Dr Mark Wilkinson, from London, to speak on 'Reference taxa for phylogenetic nomenclature'. Dr Wilkinson drew heavily on examples from his own subject speciality, caecilian amphibians, where nomenclatural systems incorporating phylogenetic information had resulted in unstable taxa. He demonstrated how support for phylogenetic trees could be determined and tested. Discussion on ways to maximise phylogenetic and nomenclatural stability ended the session.

Delegates also had an opportunity to view a display on 'We are all Naturalists: from Linnaeus to Darwin' in the Museo Botanico [Botanical Museum], including a special presentation on the 'History of the type of the Leatherback turtle' (*Dermochelys coriacea* Vandelli, 1761). The day ended with a guided tour of the Orto Botanico by the current Prefect, Professor Elsa Cappelletti, followed by a concert by the Skyensemble, a team of nine musicians based in Verona, and a conference dinner held in a restaurant in the surrounding countryside.

Session 3: Nomenclature for morphology and developmental biology

After welcoming delegates to the Palazzo del Bò, home of the University of Padua, Professor Minelli gave a brief account of the history of the Archivio Antico meeting room, with cabinets containing the records of students of past centuries. He asked Dr Traudl Krapp, from Bonn, to take the chair. The first speaker, Dr Greg Edgecombe, from London, addressed the subject of 'Anatomical nomenclature and data matrices' and the ways in which discussion on homologous structures are reflected in anatomical names. He pointed out the importance of establishing a standard orientation as a basis for terminology. He further explained how character concepts can become more rigorous with web-based tools such as MorphoBank and MorphBank, as they can be linked to specimen images and help fix morphological terms, with exemplar species linked to voucher specimens.

He was followed by Dr Lars Vogt, from Berlin, speaking on 'The linguistic problem in morphology: updating the Linnaean heritage'. Dr Vogt began by outlining the historical burden, starting with Aristotle and essentialist definitions to the empirical approach and the scientific revolution. He identified one of the current problems as being the link between evolutionary concepts and homologous assumptions, ending by offering solutions using morphological terminology based on structure and free from taxon-based assumptions. The session resumed, after a coffee break, with Professor Rolf Rutishauser, from Zurich, talking on 'Morphological nomenclature for a continuum of forms' and showing us, with graphic imagery, how plant morphology was often not clearly defined, with a continuum of 'fuzzy' sets often present. He identified the need for a Plant Structure Ontology based on neutral homology and expressed hope that evo-devo research would help in identifying the control genes underlying the plasticity of plant forms. The session ended with Dr Giuseppe Fusco, from Padua, presenting 'Morphological nomenclature, between pattern and process' and showing with clear examples how assumptions on morphological patterns such as segments and segmentation were not always as clear-cut as first appeared. He discussed 'conceptual traps' and the way in which use of some terms implied homology or evolutionary processes where these might not exist. The session ended with a general discussion on the complexity of terminology.

Before the final session, those attending the meeting had an opportunity to see Galileo's podium and the Aula Magna, as well as the restored Anatomical theatre. Professor Minelli drew attention to the many foreign former students in Padua, including William Harvey and Olof Rudbeck among others.

Session 4: Taxonomic information: organised or itemised?

Opening the final session, Professor Carlo Violani, from Pavia, in the chair, called on Dr Nicolas Bailly, from Los Baños, Philippines, to talk on 'The structure of taxonomic information: the 'Fishbase – catalogue of fishes' collaborative experience'. Dr Bailly began by identifying the magnitude of the task and the way in which Fishbase was maintained and developed. He showed the global growth of recognised fish taxa, especially in freshwater species in Southeast Asia and Amazonia, and the challenge faced in long-term maintenance of this biodiversity database. He was followed by Dr Fabio Stoch, from Rome, speaking on 'The structure of taxonomic information: the 'Checklist of the animal species of Italy' experience'. He informed us that Italy was the first European country to produce a national checklist, beginning work in 1991, but that this had involved 272 specialists in 15 countries and had helped initiate the Fauna Europaea project. He explained how the database entry had developed and how it provided local and regional information, showing the high endemism and species richness of Italy. He ended by identifying the huge task still ahead, with the next millennium being a predicted completion date but with increasing extinction rates making this a race against time, with an ever-increasing 'Linnaean shortfall' in both taxonomists and support. The last presentation, by Dr Sandra Knapp, from London, on 'The structure of taxonomic information: the Solanaceae experience' was a virtual presentation as Dr Knapp could not attend in person. Dr Knapp spoke on a project she had been involved in, with worldwide contributions to a web-based 'monograph' on the Solanaceae, one of the most species rich plant families and with strong economic significance. She showed how formal diagnoses could be broken down into component parts as searchable word strings and linked to publications and images, with photographic 'specimens' and GPS information providing 'collection data'. After brief discussion the meeting ended with thanks to Professor Minelli and his team and to all speakers. Professor Minelli asked all contributors to send him their papers for publication in *Zootaxa*.

Case 3456

***Nerita helicina* Brocchi, 1814 (currently *Euspira helicina*; Mollusca, Gastropoda, NATICIDAE): proposed conservation of usage of the specific name by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75.6, is to conserve the current usage of the name *Euspira helicina* (Brocchi, 1814) for a species of naticine gastropod from the Pliocene of Piacenza area, Italy. The lectotype of *Euspira helicina* (Brocchi, 1814) is not in taxonomic accord with the current usage of this name and exhibits all the characters of *Tectonatica prietoi* (Hidalgo, 1873) leading to considerable confusion. It is proposed that the previous type fixations for the species *Euspira helicina* (Brocchi, 1814) be set aside and a neotype consistent with the current usage be designated.

Keywords. Nomenclature; taxonomy; NATICIDAE; *Euspira helicina*; *Tectonatica prietoi*; naticine gastropod; Pliocene; Piacenza area, Italy.

1. *Nerita helicina* was established by Brocchi (1814, p. 297) on the basis of Pliocene shell material from an unspecified locality in the Piacenza area ('Fossile nel Piacentino'). In Brocchi's text there is no information about the number of specimens studied. The original diagnosis '*Testa solida subglobosa, anfractibus rotundatis distinctis, umbilico semiclauso, labio adnato, incrassato, calloso*', and the short descriptive notes and poor figure published by Brocchi (1814, pl. 1, fig. 10) failed to clarify the distinguishing characters of the species, and the interpretation of subsequent workers has followed the species concept outlined by Sacco (1891, p. 70). The species was quite frequently quoted, described and/or figured later on, and assigned to *Natica* Scopoli, 1777, *Lunatia* Gray, 1847 or *Polinices* Montfort, 1810 and more recently to *Euspira* Agassiz in Sowerby, 1837. Rossi Ronchetti (1955), in the frame of a revision work of Brocchi's 'types', dealing with *helicina*, described and figured (p. 161, fig. 82) a shell (i 4679 from Brocchi's material in Museo Civico di Storia Naturale di Milano) as 'holotype' of *Nerita helicina* (cited as '*Polynices (Lunatia) helicina* (Br.)'). No mention was made with regard to any selection among original specimens, but the shell is deemed to be the lectotype of *Nerita helicina* (Article 74.6 of the Code – Fixation of lectotype by inference of "holotype" or "the type" before 2000).

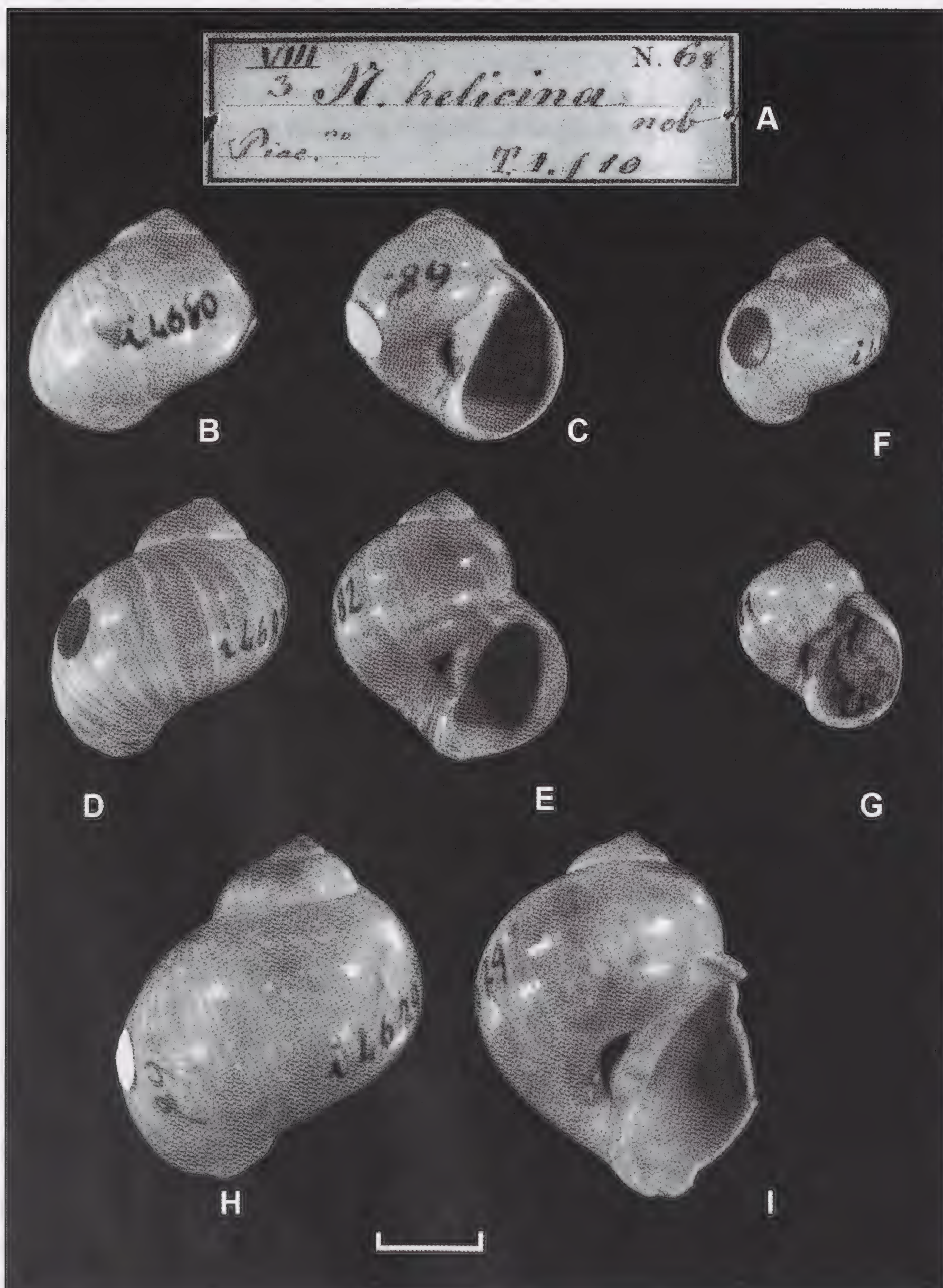


Fig. 1. Specimens labelled as *Nerita helicina* Brocchi, 1814 in the MSNM (scale bar = 10 mm). **A.** Brocchi's original handwritten label. **B.** i 4680, Piacentino (Piacenza area), abapertural view of specimen selected herein as neotype of *Nerita helicina* Brocchi, 1814; **C.** same, apertural view. **D.** i 4682, Piacentino (Piacenza area), abapertural view of specimen closely conforming to the concept of *Nerita helicina* Brocchi as used by later authors; **E.** same, apertural view. **F.** i 4681, Piacentino (Piacenza area), abapertural view of specimen matching the characters of *Natica prietoi* Hidalgo, 1873 (note the different shape of the umbilical callus in respect to i 4680 and i 4682); **G.** same, apertural view. **H.** i 4679, Piacentino (Piacenza area), abapertural view of specimen indicated as 'holotype' of *Nerita helicina* Brocchi, 1814 by Rossi Ronchetti (1955), but actually belonging to *Natica prietoi* Hidalgo, 1873 (note the different shape of the umbilical callus in respect to i 4680 and i 4682); **I.** same, apertural view.

2. Brocchi's material in Museo Civico di Storia Naturale di Milano (MSNM) consists of one box with four specimens (i 4679–i 4682); the box also contains the original manuscript label numbered 68 (Fig. 1). Examination of this material has shown that two distinct species are represented. Two shells, i 4680 (Fig. 1B, C) and i 4682 (Fig. 1D, E) conform perfectly to the concept of *Nerita helicina* followed for nearly two centuries by most authors and agree with the short description provided by Brocchi (1814). The other two, i 4679 (Fig. 1H, I) and i 4681 (Fig. 1F, G) exhibit all the characters (protoconch and teleoconch) of the uncommon naticine *Natica prietoi* (currently *Tectonatica prietoi*) Hidalgo, 1873 (p. 332). It is noteworthy that one of these latter shells (i 4679) is that indicated as 'holotype' of *Nerita helicina* by Rossi Ronchetti (1955). It is likely that Rossi Ronchetti (1955) was unaware of the fossil occurrence of *Natica prietoi*, at that time known only from modern environments (Hidalgo, 1873; Ancey, 1904) although since recorded from several Pliocene localities in Italy (Pedriali & Robba, 2008, p. 107). In these circumstances, the name *helicina* would be a source of considerable confusion. However, considering that the name *Nerita helicina* remains available (Article 17 of the Code) and that the existing name-bearing type of *Nerita helicina* is not in taxonomic accord with the prevailing usage of the name (Arduini, 1895; Almera & Bofill, 1898; Bongo, 1914; Cossmann & Peyrot, 1919; Harmer, 1921; Glibert, 1952 a, b; Baldi, 1960; Kojumdzieva & Strachimirov, 1960; Vanzo & Pelosio, 1963; Pelosio, 1967; Robba, 1968, 1981; Mastroianni, 1969; Caprotti, 1970; Malatesta, 1974; Fekih, 1975; Caprotti, 1976; Marasti & Raffi, 1976; Pedriali, 1996), in order to conserve nomenclatural stability (Article 75.6 of the Code), we suggest that all type fixations for this species be set aside and a neotype be designated. Only two of the four shells in MSNM bear the numeral 68 written by Brocchi (in script identical to that of the original label) (Fig. 1A) and these specimens were almost certainly examined by him. One, i 4679 (Fig. 1H, I) is that indicated as 'holotype' of *N. helicina* by Rossi Ronchetti (1955) while the other i 4680 (Fig. 1B, C), also from Piacenza area, is in perfect accord with *Euspira helicina* of prevailing usage. We think it wiser to select the neotype from Brocchi's original material (i 4680, the *N. helicina* of authors) rather than the other specimen, i 4682, that is not so marked.

3. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all type fixations for the species *Nerita helicina* Brocchi, 1814 and to designate as neotype specimen i 4680 in Museo Civico di Storia Naturale di Milano (MSNM);
- (2) to place on the Official List of Specific Names in Zoology the name *helicina* Brocchi, 1814, as published in the binomen *Nerita helicina* and as defined by the neotype designated in (1) above.

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Case 3399***Dichochrysa* Yang, 1991 (Insecta, Neuroptera): proposed conservation by ruling that *Navasius eumorphus* Yang & Yang, 1990 is an available name**

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Abstract. The purpose of this application, under Articles 13, 67.2.1 and 67.8 of the Code, is to conserve the name *Dichochrysa* Yang, 1991 for a widespread and speciose genus of Old and New World green lacewings. The name *Dichochrysa* is a replacement name for *Navasius* Yang & Yang, 1990, which is a junior homonym of *Navasius* Esben-Petersen, 1936, but *Dichochrysa* is unavailable from its original publication because it is based on the unavailable specific name *Navasius eumorphus* Yang & Yang, 1990. It is proposed to conserve the name *Dichochrysa* by ruling that the name *Navasius eumorphus* is available from its publication by Yang & Yang (1990).

Keywords. Nomenclature; taxonomy; Neuroptera; CHRYSOPIDAE; *Navasius*; *Dichochrysa*; *Pseudomallada*; *Dichochrysa eumorpha*; green lacewings; antlions; Afrotropical; Nearctic; Oriental; Palaearctic.

1. Esben-Petersen (1936, p. 202) established the generic name *Navasius* (type species *Navasius elegantulus* Esben-Petersen, 1936 (p. 203), by original designation) for an African antlion (Insecta, Neuroptera, MYRMELEONTIDAE). *Navasius* Esben-Petersen, 1936 was regarded as a junior subjective synonym of *Bankisus* Navás, 1912 (p. 45) by Markl (1954, p. 221), and it has retained that taxonomic status to the present (see, for example, Stange, 2004, p. 77).

2. Yang & Yang (1990, p. 327) described a genus *Navasius*, in which they placed 15 named species of Chinese green lacewings (Insecta, Neuroptera, CHRYSOPIDAE). They explicitly designated (p. 327) '*Navasius eumorphus* (Yang & Yang)' as its type species. Yang & Yang (1990, p. 332) indicated that '*Navasius eumorphus*' was a new combination for *Mallada eumorphus* (the gender of *Mallada* Navás, 1925 is masculine, not feminine). The citation of a species *Mallada eumorphus* referred to a species that had been included for description in another manuscript submitted for publication prior to the submission of the work in which the name *Navasius* was established. However, publication of the work containing the intended original description of '*Mallada eumorphus*' was delayed, and the description of that species did not appear until 1999 (Yang et al., 1999, p. 120; in English, p. 160), where the name appeared as '*Dichochrysa eumorpha*'. Yang et al. (1999, p. 120; in English, p. 160) also designated a holotype for *Dichochrysa eumorpha*. Although the original work by Yang & Yang (1990) included several figures that were expressly attributed to '*Navasius eumorphus*' (p. 328, figs. 1a-h, 2a-d), that work contains no

‘... description or definition that states in words characters that are purported to differentiate ...’ this taxon, Article 13.1.1, nor does this name meet the criteria of Articles 13.1.2 or 13.1.3. Consequently, the name ‘*Navasius eumorphus*’ fails Article 13 and must be considered unavailable from its publication by Yang & Yang (1990). Furthermore, because only available names are eligible for fixation as type species, the genus-group name *Navasius* Yang & Yang, 1990 fails Article 67.2.1, which requires that the type species fixed in the original publication be cited by an available name. Consequently, although it appears to meet all other criteria for availability, the name *Navasius* must also be considered unavailable from its publication by Yang & Yang (1990).

3. Addressing the issue of the apparent homonymy between *Navasius* Esben-Petersen, 1936 and *Navasius* Yang & Yang, 1990 (and not recognising the actual unavailability of the latter name), Yang (1991) proposed the generic name *Dichochrysa* explicitly as a replacement name for *Navasius* Yang & Yang, 1990. However, because the type species of a replacement name is fixed automatically as the type species of the name it replaces (Article 67.8 of the Code), the name *Dichochrysa* was also effectively published without fixation of its type species in its original publication, and is thus also unavailable under Article 67.2.1. The name *Dichochrysa* Yang, 1991 also appears to meet all criteria of availability except that of type fixation in its original publication. Yang (1991, p. 150) cited the name of the type species of *Dichochrysa* as ‘*Dichochrysa eumorpha* (Yang & Yang 1990) comb. nov.’

4. Tsukaguchi (1995, p. 67) established the available generic name *Pseudomallada* (type species: *Chrysopa cognatella* Okamoto, 1914, by original designation) for seven species of Japanese green lacewings, but noted that many other species (not identified by name) belonging to this genus were also present in both the New and Old Worlds. *Pseudomallada* was treated as a junior subjective synonym of *Dichochrysa* by Brooks (1997, p. 268). Although this synonymy is nearly universally accepted in current usage, *Pseudomallada* is, in fact, the oldest available synonym for the generic concept denoted by the unavailable names *Navasius* Yang & Yang, 1990 and *Dichochrysa* Yang, 1991. This concept is, however, referred to under the name *Dichochrysa* Yang in almost all chrysopid literature published over the past 17 years (i.e. since the original proposal of the name *Dichochrysa* in 1991).

5. Recognition of the concept currently denoted by the name *Dichochrysa* filled an important void in the taxonomy of the CHRYSOPIDAE. In the few years that have elapsed since this concept was named, 154 valid species and three valid subspecies have been described in or transferred to (and currently reside in) the genus *Dichochrysa*. These include numerous species distributed throughout the Palaearctic (83 species), Ethiopian (56) and Oriental (21) faunal regions, and a smaller number of species found in the Nearctic (5) and northern Neotropical (2) regions. As currently circumscribed, *Dichochrysa* is the third most speciose genus in the family CHRYSOPIDAE and the sixth most speciose genus overall in the entire insect order Neuroptera. The permanent unavailability of *Dichochrysa*, and the validation of *Pseudomallada*, would significantly destabilise chrysopid nomenclature by requiring the creation of new combinations for approximately 140 species.

6. The name *Dichochrysa* has in a short time become deeply entrenched in the chrysopid literature, particularly the literature of the Palaearctic and Ethiopian

regions, where the majority of its species occur. Aspöck et al. (2001, pp. 93–107) recognised 32 species in the genus from the western Palaearctic. They listed ca. 85 uses of *Dichochrysa* combinations in the western Palaearctic literature during the five years from the name's first penetration into the European literature (ca. 1996) through ca. 2000 – and usage of the name has grown considerably since then. In the eastern Palaearctic, Yang (1997, pp. 78–86) recognised 42 species in *Dichochrysa* from China. All recent literature on these species in China has attributed them to *Dichochrysa*. Hölzel & Ohm (2002, pp. 126–127) recognised 51 species and two subspecies of *Dichochrysa* in the Afrotropical fauna, and it is now the most speciose chrysopid genus in that region. In contrast, the name *Pseudomallada* has remained little used – only 11 species-group names are presently known to have been combined with this generic name over the past 12 years, and each has few citations in the literature. A list of 112 references demonstrating the usage of the name *Dichochrysa* is held by the Secretariat.

7. Conservation of *Dichochrysa* can easily be effected under the plenary power by ruling that the name *Navasius eumorphus* is available from its publication by Yang & Yang (1990). This action would make *Navasius eumorphus* available for type fixation by the original designation of Yang & Yang and would render *Navasius* Yang & Yang, 1990 an available genus-group name – which would then fall as a junior homonym of *Navasius* Esben-Petersen, 1936. The replacement name *Dichochrysa* Yang would also become available with its original author and date (because a valid type fixation would then exist for the name that it was proposed to replace). Then, with the priority of *Dichochrysa* dating from 1991, it would predate its current subjective synonym *Pseudomallada*, published in 1995. *Pseudomallada* would also remain available with its own author and date for potential future use as a valid name under different generic concepts. Ruling *Navasius eumorphus* to be available from its original publication in 1990 would create essentially the same nomenclatural situation that would now prevail had *Mallada eumorphus* been made available prior to its publication as *Navasius eumorphus* by Yang & Yang (1990), as was the original intent of its authors. The requested ruling would preserve the current, nearly perfect stability of the names *Dichochrysa* Yang, 1991 and *Pseudomallada* Tsukaguchi, 1995 (a junior synonym of *Dichochrysa*).

8. Although not described in words by Yang & Yang (1990), the head, pretarsal claws, and male terminalia and genitalia of *Navasius eumorphus* were illustrated in that work, and the species involved is identifiable on the basis of those illustrations. The essential identity of the taxonomic concepts of *Navasius eumorphus* and the subsequently described *Dichochrysa eumorpha* is demonstrated by the publication of the identical figures 1a-h of Yang & Yang (1990, p. 328), under the name *Navasius eumorphus* as figures 20–36a-h of Yang et al. (1999, p. 120), under the name *Dichochrysa eumorpha*. Furthermore, '*Navasius eumorphus* Yang & Yang (1990)' is explicitly cited in synonymy under '*Dichochrysa eumorpha*, sp. nov.' by Yang et al. (1999, p. 120). These synonymical and figural links clearly tie the 1990 name *Navasius eumorphus* to the subsequent text description of *Dichochrysa eumorpha* found in Yang et al. (1999). While these taxonomic considerations have no direct bearing on the nomenclatural issues involved in this case, it seems pertinent to point out that the nomenclatural solution proposed here should not create any new taxonomic difficulties.

9. This proposal is submitted on behalf of the world neuropterological community with support from the following neuropterists: Stephen Brooks (*United Kingdom*), Charles Henry (*U.S.A.*), Vladimir Makarkin (*Russia*), Norman Penny (*U.S.A.*), Catherine Tauber (*U.S.A.*), and Shaun Winterton (*Australia*).

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that:
 - (a) the name *eumorphus* Yang & Yang 1990, as published in the binomen *Navasius eumorphus*, is available from its publication in that work;
 - (b) the lectotype of *Navasius eumorphus* Yang & Yang, 1990 is the specimen designated by Yang et al., 1999 as the holotype of *Dichochrysa eumorpha* sensu Yang et al., 1999;
- (2) to place on the Official List of Generic Names in Zoology the name *Dichochrysa* Yang, 1991 (gender: feminine), replacement name for *Navasius* Yang & Yang, 1990 (junior homonym of *Navasius* Esben-Petersen, 1936), type species *Navasius eumorphus* Yang & Yang, 1990, by original designation Yang & Yang, 1990 for the replaced generic name *Navasius* Yang & Yang, 1990;
- (3) to place on the Official List of Specific Names in Zoology the name *eumorphus* Yang & Yang, 1990, as published in the binomen *Navasius eumorphus*, and as defined by the lectotype designated in (1)(b) above, specific name of the type species of *Dichochrysa* Yang, 1991, the replacement name of *Navasius* Yang & Yang, 1990;
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Navasius* Yang & Yang, 1990 (junior homonym of *Navasius* Esben-Petersen, 1936), type species by original designation *Navasius eumorphus* Yang & Yang, 1990.

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For more complete bibliographical and dating information, and for links to pdfs of some of the references cited above, see the cited reference numbers in the on-line Bibliography of the Neuropterida [BotN].

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Case 3460

***Liburnia* Stål, 1866 (Insecta, Hemiptera, DELPHACIDAE): proposed designation of *Embolophora monoceros* Stål, 1855 as the type species**

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Abstract. The purpose of this application, under Article 69 of the Code, is to fix the type species of the delphacid planthopper genus *Liburnia* Stål, 1866 as *Embolophora monoceros* Stål, 1855. *Liburnia* has had three type species designated, all of which are currently type species of other genera. Fixation of *Embolophora monoceros* Stål, 1855 as a type species for *Liburnia* will make *Liburnia* Stål, 1866 a junior objective synonym of *Embolophora* Stål, 1853, which is necessary to alleviate past confusion and prevent future reinterpretation of the genus.

Keywords. Nomenclature; taxonomy; DELPHACIDAE; *Liburnia*; *Embolophora*; *Embolophora monoceros*; delphacid planthopper; Afrotropical.

1. Stål (1866, p. 179) described the delphacid planthopper genus *Liburnia*, listing as generic synonyms ‘*Delphax* Auctor.’ (i.e. a segregate of *Delphax* Latreille, 1803 (p. 166) (non Fabricius, 1798)) and ‘*Embolophora* Stål. Öfv. Vet. Ak. Förh. 1853. p. 265.’, a genus that was described with no species included and misspelled as ‘*Embolophora*’. This was clearly an inadvertent error as the author provided etymology suggesting that the correct spelling should be *Embolophora*. In his subsequent publications, Stål (1855, 1866) used the correct spelling *Embolophora*. *Embolophora monoceros* Stål, 1855 became the type species by subsequent monotypy as the first validly included species. A type species of *Liburnia* was not explicitly designated in the original publication. The genus *Delphax* Latreille, 1803 is a junior homonym of *Delphax* Fabricius, 1798, while the name *Delphax* Klein in Walbaum, 1792 is not available by the ruling in Opinion 21 (see Opinions and Declarations, 1958, **1B**: pp. 51–52).

2. In the original description of *Liburnia*, Stål (1866) divided the included species into two groups. In the first (‘a. *Capite longissime protuberante*’), Stål (1866, p. 179) listed ‘*Embolophora* Stål. Öfv. Vet. Ak. Förh. 1853. p. 265.’ as a senior synonym, and gave ‘*L. Monoceros* Stål’, as the only included species with *Embolophora monoceros* Stål, 1855 (p. 92) in the synonymy list. The second group (‘aa. *Capite ante oculos vix vel paullo prominulo, thorace nonnihil angustiore*’) explicitly included *Delphax vitticollis* Stål, 1855, *Delphax lautipes* Stål, 1858, *Delphax maculigera* Stål, 1858 and *Cixius centralis* Signoret, 1860. Stål (1866, p. 180) also referred to ‘*L[iburnia]. smaragdulae* Stål’ [sic] (correct *smaragdula*) and ‘*L. pallentis*’ [sic], (correct *pallens*).

3. There have been three type species designations for *Liburnia*:

- (a) Distant (1906, p. 480) cited '*L. (Embolophora) monoceros*' as the 'type', commenting (1906, p. 481) that 'Stål, who founded *Liburnia* (*supra*) gave divisional characters which were obviously truly generic'. Kirkaldy (1901, p. 340; 1907, pp. 149–150) treated *Liburnia* as a junior synonym of *Embolophora*.
 - (b) However, Van Duzee repeatedly (1909, p. 201; 1912, pp. 504–505; 1939, pp. 66–68) argued that Stål's intent was to provide a new name for *Delphax* Latreille, 1803 (non Fabricius, 1798); therefore he asserted that the type species of *Liburnia* should be the species designated by Latreille, namely *Fulgora pellucida* Fabricius, 1794 (p. 7) (Latreille, 1807, pp. 167–168), or *Fulgora striata* Fabricius, 1794 (Latreille, 1810, p. 434), a junior synonym of *Fulgora pellucida* Fabricius, 1794.
 - (c) Muir (1915, p. 265) treated *Embolophora* as a separate genus from *Liburnia*, and initially followed Van Duzee's type designation of *Fulgora pellucida* (with *Delphax* auct. non Fabricius, 1798, *Delphacodes* Fieber, 1866 and *Delphacissa* Kirkaldy, 1906 as synonyms). Later, Muir (1917, pp. 332–333) designated *Delphax vitticollis* Stål, 1855 as type of Stål's *Liburnia* group, excluding *Embolophora*, and advocated (Muir, 1917, pp. 332–333, Muir & Giffard, 1924, pp. 18–19) that *Liburnia* Stål, 1866 be treated as a junior synonym of *Delphacodes* Fieber, 1866, a genus that was also described as a segregate of *Delphax* Latreille (non Fabricius, 1798). Muir (1926) subsequently transferred many species previously in *Liburnia* to *Delphacodes* Fieber, 1866, an interim arrangement that was at least implicitly followed by many subsequent workers but is no longer appropriate since *Delphacodes* Fieber, 1866 has been restricted by modern workers to include only a few Palaearctic species (e.g. Asche & Remane, 1983). The last taxon to be described or transferred into *Liburnia* was *L. sanctipauli* Jeannel, 1947.
4. Latreille's (1807, 1810) designations of the type species of *Delphax* Fabricius, even if potentially valid, were suppressed by the Commission (Melville, 1960; Opinion 602, BZN 18: 246–248, August 1961). Van Duzee's (1909, p. 201) later designation of *Fulgora pellucida* Fabricius, 1794 (currently the type species of *Javesella* Fennah, 1963) as type species of *Liburnia* is invalid as this species was not among those originally included by Stål (1866) in *Liburnia* (i.e. in violation of Article 67.2 of the Code).
5. *Embolophora* Stål, 1853 is currently treated as a valid genus (e.g. Fennah, 1958, 1969; Medler 1980; Asche 1983, 1985) in the subfamily STENOCRANINAE, with *Embolophora monoceros* Stål, 1855, the type species by subsequent monotypy. *Embolophora* was monotypic, except where treated as including *Liburnia* s.l., until the description of two new species by Asche (1983).
6. *Liburnia* Stål, 1866 has been treated in a variable fashion over time, with many species placed into, then subsequently removed from this genus. Most significantly, Metcalf (1943) treated it as a valid genus (with the type species *Delphax vitticollis* Stål, 1855), with *Sogata* Distant, 1906 as a junior synonym, including 57 valid names and over 300 invalid names, excluding misspellings and subspecies. At present there appear to be 21 species assigned to *Liburnia*, although *Embolophora monoceros*, *Delphax vitticollis* and *Fulgora pellucida* are not among them. Some modern workers have placed *Liburnia* as a junior synonym of *Embolophora* (e.g. China, 1939; Asche,

1983, 1985), a treatment that is here recommended as the one with minimal impact on established nomenclature, whereas any other treatment of *Liburnia* would disturb the nomenclature of *Javesella* Fennah, 1963, *Matutinus* Distant, 1917, or other established genera, without presenting a solution to the generic identity of the 21 species that reside in *Liburnia*.

6. There are two potentially valid type designations depending largely on the assertion of whether Stål (1855) intended subgenera or not. If it were accepted that Stål (1966) divided *Liburnia* into subgenera (i.e. subgenera *Embolophora* and *Liburnia*), then the type species must fall within the nominotypical subgenus (Article 69.1 of the Code), and Muir's (1917, p. 332) designation of *Delphax vitticollis* Stål, 1855 is the first valid type species designation. *Delphax vitticollis* Stål, 1855 is the type species of *Matutinus* Distant, 1917 (DELPHACINAE), a mostly Afrotropical genus of 26 valid species (Fennah, 1972). Alternatively, if it is accepted that subgenera were not intended, then *Embolophora monoceros* is the type species either through the type designation by Distant (1906, p. 480), or by monotypy, with Stål's (1866) original description of *Liburnia* as a junior synonym of his own genus *Embolophora*.

7. A decision to unequivocally establish the type species of *Liburnia* is sought because of the inherent uncertainties regarding Stål's original description and subsequent multiple interpretations. Similarly, suppression of alternative type designations is sought to prevent future possible reinterpretation of the genus and the consequent nomenclatural instability.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type species fixations for the nominal genus *Liburnia* Stål, 1866 and to designate *Embolophora monoceros* Stål, 1855 as the type species;
- (2) to place on the Official List of the Generic Names in Zoology the name *Embolophora* Stål, 1853 (gender: feminine), type species by subsequent monotypy *Embolophora monoceros* Stål, 1855;
- (3) to place on the Official List of Specific Names in Zoology the name *monoceros* Stål, 1855, as published in the binomen *Embolophora monoceros* (the type species of *Embolophora* Stål, 1855 and *Liburnia* Stål, 1866), as ruled in (1) above.
- (4) to place on the Official Index of Invalid and Rejected Generic Names in Zoology the name *Liburnia* Stål, 1866 (a junior objective synonym of *Embolophora monoceros* Stål, 1855 by designation of *Embolophora monoceros* Stål, 1855 as the type species in (1) above).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3458

***Balintus* D'Abrera, 2001, *Gulliveria* D'Abrera & Bálint, 2001, *Salazaria* D'Abrera & Bálint, 2001, *Megathecla* Robbins, 2002 and *Gullicaena* Bálint, 2002 (Insecta, Lepidoptera, LYCAENIDAE): proposed establishment of availability**

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Abstract. The purpose of this application, under Articles 10.1, 13.1 and 81.1 of the Code, is to stabilise the usage of five generic names of Neotropical butterflies by ruling that they are available from their original descriptions. D'Abrera (2001) and D'Abrera & Bálint (2001) proposed eight generic names in the LYCAENIDAE [Leach], [1815] in which they differentiated the type species, not the genus. The availability of some of these names has subsequently been interpreted differently by different authors. One of these generic names, *Salazaria* D'Abrera & Bálint, 2001, is widely used on websites. A second, *Balintus* D'Abrera, 2001, has been treated as a nomenclaturally and taxonomically valid genus. A third, *Gulliveria* D'Abrera & Bálint, 2001, is a junior homonym that was replaced with *Megathecla* Robbins, 2002 and *Gullicaena* Bálint, 2002. However, differentiating the type species does not satisfy the requirements of Article 13.1 of the Code, so all these names are unavailable. To promote nomenclatural stability, the Commission is requested to rule that the generic names *Balintus* D'Abrera, 2001, *Gullicaena* Bálint, 2002, *Gulliveria* D'Abrera & Bálint, 2001, *Megathecla* Robbins, 2002 and *Salazaria* D'Abrera & Bálint, 2001 are available and place *Balintus* D'Abrera, 2001, *Salazaria* D'Abrera & Bálint, 2001, *Megathecla* Robbins, 2002 and *Gullicaena* Bálint, 2002 on the Official List of Generic Names in Zoology, and to place *Annamaria* D'Abrera & Bálint, 2001, *Chopinia* D'Abrera, 2001, *Gulliveria* D'Abrera & Bálint, 2001, *Lucilda* D'Abrera & Bálint, 2001, *Pedusa* D'Abrera, 2001 and *Riojana* D'Abrera & Bálint, 2001 on the Official Index of Rejected and Invalid Generic Names in Zoology.

Keywords. Nomenclature; taxonomy; LYCAENIDAE; *Annamaria*; *Balintus*; *Chopinia*; *Eucharia*; *Gullicaena*; *Gulliveria*; *Lamasina*; *Lucilda*; *Megathecla*; *Pedusa*; *Riojana*; *Salazaria*; hairstreak butterflies; Neotropics.

1. D'Abrera (2001) and D'Abrera & Bálint (2001) established eight generic names in the same work (Lepidoptera, family LYCAENIDAE). They are: *Annamaria* D'Abrera & Bálint, 2001 (p. 194); *Balintus* D'Abrera, 2001 (p. 195), *Chopinia* D'Abrera, 2001 (p. 196), *Gulliveria* D'Abrera & Bálint, 2001 (p. 195), *Lucilda* D'Abrera & Bálint,

2001 (p. 194), *Pedusa* D'Abrera, 2001 (p. 195), *Riojana* D'Abrera & Bálint, 2001 (p. 195) and *Salazaria* D'Abrera & Bálint, 2001 (p. 195). For seven of the eight names, the words and characters of the original description differentiate the type species – they do not differentiate the genus – so that they do not meet the requirements of Article 13.1 of the Code. For the eighth generic name, the words of the original description differentiate the type species and possibly three other species, but do not differentiate the genus (discussed below in items 8–12).

2. As background, D'Abrera (2001) and D'Abrera & Bálint (2001) proposed these generic names while the nomenclature of the EUMAEINI (THECLINAE) was being systematically corrected (Robbins, 2002; Robbins & Lamas, 2002) in anticipation of the first complete checklist of Neotropical butterflies in 80 years (Lamas, 2004). This project had been underway for more than a decade, and anticipated publication at that time was early 2003. To correct the nomenclature of these newly proposed generic names quickly prior to this publication, Robbins (2002):

(1) regarded two generic names (*Annamaria* D'Abrera & Bálint, 2001 and *Chopinia* D'Abrera, 2001) as unavailable because they did not satisfy the conditions of Article 13.1 of the Code requiring that the publication proposing a new generic name should contain a 'description or definition that states in words characters that are purported to differentiate the taxon'.

(2) noted that D'Abrera & Bálint (2001) had placed the type species of *Eucharia* Boisduval, 1870 (p. 14) in *Annamaria* D'Abrera & Bálint without mentioning *Eucharia*. Since *Eucharia* Boisduval, 1870 was preoccupied by *Eucharia* Hübner, [1820] (p. 181) in the ARCTIIDAE [Leach], [1815] (Lepidoptera) and since *Annamaria* D'Abrera & Bálint, 2001 was unavailable, *Lamasina* was proposed by Robbins (2002, p. 820) as a replacement name for *Eucharia* Boisduval, 1870 (type species *Papilio ganimedes* Cramer 1775, p. 64).

(3) regarded *Gulliveria* D'Abrera & Bálint, 2001 as an available name because it was proposed as a monotypic genus, and differentiating the type species could be interpreted as differentiating the genus. Since *Gulliveria* D'Abrera & Bálint, 2001 was preoccupied by *Gulliveria* Castelnau, 1878 (Pisces), *Megathecla* Robbins, 2002 (p. 820) was proposed as a replacement name for *Gulliveria* D'Abrera & Bálint, 2001. Later that same year Bálint (2002), proposed another replacement name, *Gullicaena* Bálint, 2002 (p. 135).

3. The original description of *Annamaria* D'Abrera & Bálint, 2001 is indicative of seven of the original descriptions (the eighth is discussed in items 8–12). It reads 'genus *Annamaria* D'Abrera & Balint gen. nov.; Type species: *Thecla draudti* Lathy, 1926; In NEOTROPICAL VII: 1107 treated as *Evenus draudti*. Likewise by other workers. However is distinguished from *Evenus* by shorter cell of f.w. (1/3rd of costal length), and extension of Vein 1 of h.w. into a lobed tail at tornus. Compound androconial patch on ♂ f.w. consisting of single circle within cell & quadrifurcate patch immediately outside discocellulars. Further, androconial patches on post discal & submarginal tornal areas of f.w. respectively.' Four available specific names were included in the genus.

4. This original description was interpreted by Robbins (2002) and Robbins & Lamas (2008) as 'In NEOTROPICAL VII:1107 [the type species was] treated as *Evenus draudti*. Likewise [it was so treated] by other workers. However [it] is distinguished from *Evenus* by shorter cell of f.w. (1/3rd of costal length), and extension of Vein 1 of h.w. into a lobed tail at tornus. [It has a] compound

androconial patch on ♂ f.w. consisting of single circle within cell & quadrifurcate patch immediately outside discocellulars. Further, [it has] androconial patches on post discal & submarginal tornal areas of f.w. respectively.'

5. The implied grammatical subject in each sentence of the original description of *Annamaria* D'Abrera & Bálint, 2001 is the type species, *Thecla draudti* Lathy, 1926 (p. 40). The characters given distinguish *Thecla draudti* from *Evenus* Hübner, [1819] (p. 78); they do not distinguish the other species that D'Abrera and Bálint (2001) placed in *Annamaria* (Robbins & Lamas, 2008). The words indicate that D'Abrera & Bálint (2001) purported to differentiate the type species, not the genus. The characters indicate that D'Abrera & Bálint (2001) purported to differentiate the type species, not the genus. This indication is not a 'lapse' due to poor taxonomy or poor command of language because the words and characters in all genera proposed by D'Abrera (2001) and D'Abrera & Bálint (2001) differentiate the type species, not the genus (as noted, there is one ambiguous case, interpreted differently by Robbins [2002], discussed in items 8–12).

6. Bálint (2005) re-stated his contention that *Annamaria* D'Abrera & Bálint, 2001 was available. In response, Robbins & Lamas (2008, p. 119) again concluded that *Annamaria* D'Abrera & Bálint, 2001 was unavailable.

7. Robbins (2002, 2004) treated the monotypic *Gulliveria* D'Abrera & Bálint, 2001, *Riojana* D'Abrera & Bálint, 2001, *Lucilda* D'Abrera & Bálint, 2001, *Pedusa* D'Abrera, 2001 and *Balintus* D'Abrera, 2001 (type species *Pseudolycaena tityrus* C. Felder & R. Felder, 1865, p. 248) as available names because differentiating the type species of a monotypic genus could be interpreted as being equivalent to differentiating the genus. In retrospect, this 'interpretation' was incorrect because Article 13.1 states that the new generic taxon, not its type species, has to be differentiated.

8. The original description of *Salazaria* D'Abrera & Bálint, 2001 reads 'genus *Salazaria* d'Abrera & Bálint gen. nov.; Type species: *Thecla sala* Hewitson, 1867; Originally placed by Draudt 1919, in the *aegides* group, but treated by others including d'Abrera in '*Thecla*' (*sensu lato*). Differs from *Johnsonita* by the vein 2 of h.w. extended into tail. Verso surface distinguished by near parallel post-discal white lines on both wings. ♂ lacks androconial patch.' Nominal species included in the genus were *T. sala* Hewitson, 1867 (p. 81), *T. maraches* H.H. Druce, 1912, *T. peonida* Draudt, 1919, *T. salaeides* Draudt, 1919, *T. photismos* H.H. Druce, 1907, *T. thespia* Hewitson, 1870 and *T. neildi* D'Abrera, 1995.

9. Since Draudt (1919–1920) had placed *T. sala*, *T. maraches*, *T. peonida* and *T. salaeides* in the *aegides* group, the words in the original description of *Salazaria* could be interpreted to distinguish just *T. sala* or to distinguish *T. sala*, *T. maraches*, *T. peonida* and *T. salaeides*. Since Draudt (1919–1920) placed *T. photismos* and *T. thespia* in the *thespia* group, the words in the original description of *Salazaria* do not differentiate the genus as proposed by D'Abrera & Bálint (2001).

10. The characters in the original description of *Salazaria* provide no evidence to determine what D'Abrera & Bálint (2001) purported to differentiate because the characters are inaccurate. For example, 'Vein 2' of the hindwing is not reported to 'extend into the tail' in THECLINAE (e.g. Takasaki & Shinkawa, 1998), but rather this vein terminates at the outer margin just posterior of the tail (cf. figure 3 in Robbins & Duarte 2005). The seven species that D'Abrera & Bálint (2001) placed in *Salazaria* are currently treated in four different genera (Robbins, 2004).

11. Robbins (2004) treated *Salazaria* D'Abrera & Bálint, 2001 as an available name because possibly differentiating four species by words could be interpreted as differentiating the genus.

12. Bálint (2005) argued that if *Salazaria* were available, then *Annamaria* D'Abrera & Bálint, 2001 would also be available. Robbins & Lamas (2008) responded that Bálint's (2005) argument is incorrect, but noted that the availability of *Salazaria* is a matter of interpretation. In retrospect, our response was incorrect; the name *Salazaria* D'Abrera & Bálint, 2001 is unavailable because the genus was not differentiated, as required under Article 13.1.

13. The names proposed by D'Abrera (2001), D'Abrera & Bálint (2001), Robbins (2002), and Bálint (2002) have been used in eight of the taxonomic and nomenclatural papers cited in this application. They have also been cited in another three articles and appear on eight websites (search done on March 18, 2008), which are listed on a separate document (held by the Secretariat).

14. The Global Butterfly Names project, initially funded by GBIF-ECAT program, plans to provide a stable worldwide scientific nomenclature of butterflies (around 18,500 species, 100,000 names) with the current classification as to genus, species, and subspecies. This project is about 70% completed, including all butterfly generic names (http://www.ucl.ac.uk/taxome/gbn/Lamas_Genera_04ii08.xls). The generic names discussed in this application are currently treated on this website following Robbins (2004).

15. *Balintus* D'Abrera, 2001 and *Sálazaria* D'Abrera & Bálint, 2001 have been treated as nomenclaturally and taxonomically valid genera (Robbins 2004), as has *Megathecla* Robbins, 2002 (type species *Thecla gigantea* Hewitson, 1867, p. 83), the replacement name for *Gulliveria* D'Abrera & Bálint, 2001. To maximise nomenclatural stability while sustaining the meaning of Article 13.1 of the Code, it is proposed, following Article 81.1 of the Code, to establish by plenary power the availability of *Balintus* D'Abrera, 2001, *Gulliveria* D'Abrera & Bálint, 2001, *Salazaria* D'Abrera & Bálint, 2001, *Megathecla* Robbins, 2002, and *Gullicaena* Bálint, 2002.

16. The International Commission on Zoological Nomenclature is accordingly asked:
(1) to use its plenary power to rule that the following generic names are deemed to be available:

- (a) *Balintus* D'Abrera, 2001 (gender: masculine), type species by original designation *Pseudolycaena tityrus* C. Felder & R. Felder, 1865;
- (b) *Gulliveria* D'Abrera & Bálint, 2001 (gender: feminine), type species by original designation *Thecla gigantea* Hewitson, 1867, a junior homonym of *Gulliveria* Castelnau, 1878;
- (c) *Salazaria* D'Abrera & Bálint, 2001 (gender: feminine), type species by original designation *Thecla sala* Hewitson, 1867;
- (d) *Megathecla* Robbins, (26 June) 2002 (gender: feminine), replacement name for *Gulliveria* D'Abrera & Bálint, 2001, type species *Thecla gigantea* Hewitson, 1867;
- (e) *Gullicaena* Bálint, (30 November) 2002 (gender: feminine), replacement name for *Gulliveria* D'Abrera & Bálint, 2001; type species *Thecla gigantea* Hewitson, 1867, a junior objective synonym of *Megathecla* Robbins, (26 June) 2002;

(2) to place on the Official List of Generic Names in Zoology the following names:
(a) *Balintus* D'Abrera, 2001, as ruled in (1)(a) above;

- (b) *Salazaria* D'Abrera & Bálint, 2001, as ruled in (1)(c) above;
- (c) *Megathecla* Robbins, 2002 (gender: feminine), as ruled in (1)(d) above;
- (d) *Lamasina* Robbins, 2002 (gender: masculine), replacement name for *Eucharia* Boisduval, 1870;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *tityrus* C. Felder & R. Felder, 1865, as published in the binomen *Pseudolycaena tityrus*, the type species of *Balintus* D'Abrera, 2001;
 - (b) *sala* Hewitson, 1867, as published in the binomen *Thecla sala*, the type species of *Salazaria* D'Abrera & Bálint, 2001;
 - (c) *gigantea* Hewitson, 1867, as published in the binomen *Thecla gigantea*, the type species of *Megathecla* Robbins, 2002;
 - (d) *ganimedes* Cramer, 1775, as published in the binomen *Papilio ganimedes*, the type species of *Lamasina* Robbins, 2002;
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Eucharia* Boisduval, 1870 (gender: feminine), type species by subsequent designation *Papilio ganimedes* Cramer, 1775, a junior homonym of *Eucharia* Hübner, [1820] (Lepidoptera);
 - (b) *Annamaria* D'Abrera & Bálint, 2001 (gender: feminine), type species by original designation *Thecla draudti* Lathy, 1926, as not available from its original description;
 - (c) *Chopinia* D'Abrera, 2001 (gender: feminine), type species by original designation *Thecla mazurka* Hewitson, 1867, as not available from its original description;
 - (d) *Gulliveria* D'Abrera & Bálint, 2001, as ruled as available in (1)(b) above, a junior homonym of *Gulliveria* Castelnau, 1878;
 - (e) *Lucilda* D'Abrera & Bálint, 2001 (gender: feminine), type species by original designation *Thecla crines* Druce, 1907, as not available from its original description;
 - (f) *Pedusa* D'Abrera, 2001 (gender: feminine), type species by original designation *Thecla pedusa* Hewitson, 1867, as not available from its original description;
 - (g) *Riojana* D'Abrera & Bálint, 2001 (gender: presumably feminine), type species by original designation *Thecla thargelia* Burmeister, 1878, as not available from its original description;
 - (h) *Gullicaena* Bálint, (30 November) 2002 (gender: feminine), replacement name for *Gulliveria* D'Abrera & Bálint, 2001, a junior objective synonym of *Megathecla* Robbins, (26 June) 2002.

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Case 3401***Delognatha* Lacordaire, 1859 (Insecta, Coleoptera): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the name *Delognatha* Lacordaire, 1859 for a tenebrionid genus from the Neotropical Region. This name is a junior homonym of the unused name *Delognatha* Agassiz, 1846. *Delognatha* Lacordaire, 1859 has been used as valid since its description, while *Delognatha* Agassiz, 1846 has not been used as valid after it was established other than by two authors more than 150 years ago. It is proposed to conserve the name *Delognatha* Lacordaire, 1859 by suppression of the name *Delognatha* Agassiz, 1846.

Keywords. Nomenclature; Coleoptera; TENEBRIONIDAE; PHRENAPATINAE; PIMELIINAE; *Delognatha*; *Dailognatha*; darkling beetles; Neotropical Region; Palaearctic Region.

1. Steven (1829, p. 88) proposed the generic name *Dailognatha* for the species *Tentyria aequalis* Tauscher, 1812. Eschscholtz (1831, p. 9) was the second worker to use the name (as *Dailognatha* Steven). Presumably because Steven's paper was little-known by his contemporaries, the genus *Dailognatha* has been attributed to 'Eschscholtz, 1831' or 'Steven in Eschscholtz, 1831' by subsequent authors (Agassiz, 1846a, p. 51; 1846b, p. 116; Sherborn, 1925, p. 1777; Neave, 1939, p. 7; Gebien, 1910, p. 44; 1937, p. 596). *Dailognatha* Steven, 1829, which contains 33 valid species-group names from the Palaearctic Region (Löbl et al., 2008), is currently used as valid and belongs to the tenebrionid subfamily PIMELIINAE.

2. Dejean (1834, p. 200; 1836, p. 221) used the generic name *Delognatha* and included one species, *Delognatha lacordairei* Dejean. Both generic and species names are nomina nuda because neither was described by Dejean and the species name was not made available before the publication of Dejean's catalogues. This genus was listed by Dejean (1834, 1836) near *Phtora* Dejean 1834, another nomen nudum (= *Clamoris* Gozis, 1886), which belongs to the tenebrionid subfamily PHRENAPATINAE.

3. Agassiz (1846b, p. 118) listed *Delognatha* Dejean, 1833 as an emendation of *Dailognatha* Steven in Eschscholtz, 1831 (see Agassiz, 1846b, p. 116), although Dejean's name was not originally proposed as an emendation of *Dailognatha* since

both generic names represent taxa from two different subfamilies of TENEBRIONIDAE. Agassiz was in error when he listed 1833 as the date of Dejean's publication; this catalogue was published between 1833 and 1836, the correct year of publication for the TENEBRIONIDAE section (livraison 3) was 1834 (according to Bousquet, 2004). The unjustified emendation *Delognatha* Agassiz, 1846 was used as the correct spelling for *Dailognatha* by two authors more than 150 years ago (Gistel, 1856, p. 181; 1857, p. 385; Redtenbacher, 1858, p. 578). Sherborn (1925, p. 1832) and Neave (1939, p. 29) listed *Delognatha* Agassiz, 1846 as an emendation of *Dailognatha*.

4. Lacordaire (1859, p. 315) described the genus *Delognatha* for the first time and referred to Dejean's concept of the genus 'Dej. Cat. éd. 2, p. 200'. Lacordaire included two species in this genus, *lacordairei* and *auriculata*, based on unavailable species names previously mentioned in Dejean's catalogues, under *Delognatha* Dejean, 1834 and *Peneta* Dejean, 1836, respectively. The two species originally included in *Delognatha* were described in a footnote (Lacordaire, 1859, p. 316). Lacordaire (1859, p. 315) listed the nomen nudum *Peneta* Dejean, 1836, p. 221 as a junior synonym of *Delognatha* Dejean, 1834. The name *Delognatha* Lacordaire, 1859 has been used as valid since it was first made available in 1859, for a genus that includes nine nominal valid species-group taxa, all of which occur in the Neotropical Region (subfamily PHRENAPATINAE). The name *Delognatha* Lacordaire, 1859 has no junior synonyms.

5. Gebien (1940, p. 756; catalogue, p. 563) designated *Delognatha lacordairei* Lacordaire, 1859 (p. 316) as the type species of *Delognatha* Lacordaire, 1859.

6. The name *Delognatha* Lacordaire, 1859 is a junior homonym of *Delognatha* Agassiz, 1846. As the unjustified emendation *Delognatha* Agassiz has not been used as valid for *Dailognatha* Steven since 1899, it qualifies as a nomen oblitum under Article 23.9.1.1. Although the generic name *Delognatha* Lacordaire, 1859 has been used as valid in the last fifty years (Watt, 1974, p. 412; Doyen, and Lawrence, 1979, p. 355; Costa et al., 1988, p. 216; Doyen et al., 1990, p. 241) the name has not had sufficient usage to allow its 'automatic' conservation under Article 23.9.2. This case is brought to the Commission under the provisions of Article 23.9.3.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Delognatha* Agassiz, 1846 for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the name *Delognatha* Lacordaire, 1859 (gender: feminine), type species *Delognatha lacordairei* Lacordaire, 1859 by subsequent designation by Gebien (1940);
- (3) to place on the Official List of Specific Names in Zoology the name *lacordairei* Lacordaire, 1859, as published in the binomen *Delognatha lacordairei* (specific name of the type species of *Delognatha* Lacordaire, 1859);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Delognatha* Agassiz, 1846, as suppressed in (1) above.

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Case 3461

ANCYLINI Michener, 1944 (Insecta, Hymenoptera): proposed emendation of spelling to ANCYLAINI, to remove homonymy with ANCYLINI Rafinesque, 1815 (Mollusca, Gastropoda)

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Abstract. The purpose of this application, under Article 29 of the Code, is to emend the family-group name ANCYLINI Michener, 1944 (Insecta, Hymenoptera), a junior homonym of ANCYLINI Rafinesque, 1815 (Mollusca, Gastropoda), thereby removing the homonymy between the two names. It is proposed that the stem of the generic name *Ancyla* Lepeletier de Saint Fargeau, 1841, on which the hymenopteran family-group name is based, be emended to give ANCYLAINI, while leaving the molluscan name (based on *Ancylus* Müller, 1774) unaltered.

Keywords. Nomenclature; taxonomy; Hymenoptera; Gastropoda; ANCYLINI; ANCYLAINI; *Ancyla*; *Ancylus*; *Ancyla oraniensis*; *Ancylus fluviatilis*; bees; pond snails; Palearctic; cosmopolitan.

1. Müller (1774, p. 199) established the genus *Ancylus* for a group of pond snails. The type species is *Ancylus fluviatilis* Müller, 1774 (p. 201) by designation under the plenary power in Opinion 363 (Opinions and Declarations, **11**: 183–202, November 1955). The name *Ancylus* Müller, 1774 was placed on the Official List of Generic Names in Zoology by a ruling in Opinion 363. By the same ruling the name *Ancylus* Geoffroy (E.L.), 1767 was placed on the Official Index of the Rejected and Invalid Generic Names in Zoology as a name published in a work rejected for nomenclatural purposes by a ruling in Opinion 362 (Opinions and Declarations, **11**: 173–182, November 1955).

2. Rafinesque (1815, p. 143) established the group name ANCYLIDIA for the genus *Ancylus* Müller, 1774 and related pond snail genera. The name was incorrectly spelled as ANCYLEA by Menke (1830, p. 11) and later correctly emended to ANCYLINAE by

Schröckinger-Neudenberg (1865, p. 318), although Direction 41 (Opinions and Declarations 11: 431–452, May 1956) indicated the earliest emendation as Fischer (1883, p. 504). ANCYLINAE Rafinesque, 1815 was placed on the Official List of Family-Group Names in Zoology by a ruling in Direction 41.

3. Lepeletier de Saint Fargeau (1841, p. 294) established the genus *Ancyla* for a species of North African bee. The type species is *Ancyla oraniensis* Lepeletier de Saint Fargeau, 1841 (p. 294) by monotypy.

4. Michener (1944, p. 273), apparently unaware of the family-group name for snails, established the tribe ANCYLINI for Palaearctic bees of the genus *Ancyla* Lepeletier de Saint Fargeau, 1841 and the related genus *Tarsalia* Morawitz, 1895 (p. 9) (type species *Tarsalia hirtipes* Morawitz, 1895 (p. 9) by monotypy).

5. The name ANCYLINI Rafinesque, 1815 pre-dates the junior homonym ANCYLINI Michener, 1944 by more than a century. Today both names are widely used in the literature on snails (e.g. Berg, 1962; Streit, 1978; Piechocki, 1986; Lanzer, 1991; Jokinen, 1992; Rallo & Rico, 1993; Chan, 1996; Martinovic et al., 1999; Gomez et al., 2004; Jorgensen et al., 2004; Bouchet & Rocroi, 2005; Walther et al., 2006; Albrecht et al., 2006, 2007) and bees (e.g. Warncke, 1979; Silveira, 1993a, 1993b, 1995; Roig-Alsina & Michener, 1993; Radchenko & Pesenko, 1994; Baker, 1998; Engel, 2001, 2005; Melo & Gonçalves, 2005; Michener, 2007), respectively. No existing synonym is available to replace the insect name and the establishment of a new family-group name based on the genus *Tarsalia* Morawitz, 1895 would be required with the abolishment of ANCYLINI Michener, 1944. Such a change would disrupt the extensive literature on the systematics and biology of bees and would be contrary to overall nomenclatural stability. We therefore propose that the insect name be emended to ANCYLAINI, leaving the molluscan name unaltered.

6. It is worth noting that a third homonymous family-group name exists among the Lepidoptera. Pierce & Metcalfe (1922, p. 53) established the family-group name ANCYLISIDII for *Ancylis* Hübner, 1825 and related genera. In accordance with Article 32.5.3.1 of the Code (an incorrectly formed suffix) the name has been emended in the lepidopterological literature to ANCYLINI. ANCYLINI Pierce & Metcalfe, 1922 is already a junior synonym of ANCHYLOPERIDAE Stainton, 1858 (p. 188) and so no action is required to resolve the homonymy for the lepidopteran name. Since the lepidopteran name does not affect the validity or availability of the hymenopteran name, nor impact the situation of homonymy or priority between ANCYLINI Rafinesque, 1815 and ANCYLINI Michener, 1944, it is not considered further herein.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that for the purposes of Article 29 of the Code the stem of the generic name *Ancyla* Lepeletier de Saint Fargeau, 1841 is ANCYLA–;
- (2) to place on the Official List of Generic Names in Zoology the name *Ancyla* Lepeletier de Saint Fargeau, 1841 (gender: feminine), type species by monotypy *Ancyla oraniensis* Lepeletier de Saint Fargeau, 1841;
- (3) to place on the Official List of Specific Names in Zoology the name *oraniensis* Lepeletier de Saint Fargeau, 1841, as published in the binomen *Ancyla oraniensis* (specific name of the type species of *Ancyla* Lepeletier de Saint Fargeau, 1841);
- (4) to place on the Official List of Family-Group Names in Zoology the name ANCYLAINI Michener, 1944, type genus *Ancyla* Lepeletier de Saint Fargeau, 1841 (spelling emended by the ruling in (1) above);

- (5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name ANCYLINI Michener, 1944 (an incorrect original spelling of ANCYLAINI Michener, 1944, as ruled in (1) above) (Hymenoptera).

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Case 3455***Pseudobagrus* Bleeker, 1858 (Osteichthyes, Siluriformes, BAGRIDAE): proposed conservation**

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Abstract. The purpose of this application, under Articles 23.9 and 81.2 of the Code, is to conserve the generic name *Pseudobagrus* Bleeker, 1858 for a group of bagrid catfishes (order Siluriformes) by suppressing the senior name *Tachysurus* La Cepède, 1803. The identity of *Tachysurus* remained ambiguous until the recent designation of a neotype for *Tachysurus sinensis* La Cepède, 1803. The designated neotype is a specimen that had until that point been identified as *Pseudobagrus fulvidraco* (Richardson, 1845). This neotype designation made *Tachysurus* a senior subjective synonym of *Pseudobagrus*. The use of the name *Tachysurus* La Cepède, 1803 in reference to Southeast Asian freshwater bagrid catfishes currently referred to *Pseudobagrus* would create significant confusion in the literature. It is proposed that the name *Tachysurus* La Cepède, 1803 be suppressed.

Keywords. Nomenclature; taxonomy; BAGRIDAE; *Pseudobagrus*; *Tachysurus*; *Pseudobagrus aurantiacus*; *Pseudobagrus fulvidraco*; *Tachysurus sinensis*; catfish; China.

1. La Cepède (1803, pp. 150, 151, pl. 5) proposed the name *Tachysurus sinensis* for a catfish depicted in a Chinese illustration archived in Paris at the Muséum National d'Histoire Naturelle (MNHN). *Tachysurus sinensis* La Cepède, 1803 is the type species of *Tachysurus* La Cepède, 1803 (pp. 150, 151) by monotypy. The locality for the illustration is given as China.

2. Bleeker (1858, p. 60, 65) proposed the generic name *Pseudobagrus* for the bagrid catfish *Bagrus aurantiacus* Temminck & Schlegel, 1846 (p. 227). The type species of *Pseudobagrus* Bleeker, 1858 by monotypy is *Bagrus aurantiacus* Temminck & Schlegel, 1846.

3. The identity of *Tachysurus* remained ambiguous as an undetermined siluriform (Wheeler & Baddokwaya, 1981; Taylor, 1986) until the recent designation of a

neotype (Ng & Kottelat, 2007). Ferraris (2007) noted that in Chinese literature *Tachysurus sinensis* had frequently been treated as valid in *Arius* Cuvier & Valenciennes, 1840, a genus of ariid catfishes.

4. Ng & Kottelat (2007, p. 37) designated a neotype for *Tachysurus sinensis* La Cepède, 1803. The designated neotype (USNM 336888) is a specimen from the National Museum of Natural History (Washington, DC) that had until that point been identified as *Pseudobagrus fulvidraco* (originally *Pimelodus ? fulvidraco* Richardson, 1845, p. 286). The designated neotype is part of a collection of 10 specimens collected in March 24, 1995 by L.R. Parenti and C. Zhang from Huairou Reservoir in Huairou County, Beijing (40 19' 00" N, 116 37' 31" E). The neotype designation by Ng & Kottelat (2007, p. 37) made *Tachysurus* a subjective senior synonym of *Pseudobagrus*.

5. The name *Tachysurus* La Cepède, 1803 has priority over *Pseudobagrus* Bleeker, 1858. However, recognising its precedence would produce considerable taxonomic instability. In the past 50 years, at least 135 works (with a total of 260 authors) that mention *Pseudobagrus* have been published. In addition, in the same span of time, 121 works use *Tachysurus* in reference to ariid catfishes. The catfish family ARIIDAE has a global distribution and currently includes 120 species of catfishes, many of which are commercially important. The BAGRIDAE is a freshwater group that is found primarily in Asia and also includes species of commercial significance. The Commission Secretariat holds the lists demonstrating these uses. Considering the potential to add taxonomic confusion to a relatively large and active body of literature, and the ambiguity of the source material on which La Cepède's original name proposal was made, we opine that the neotype designation of Ng and Kottelat (2007) does not follow General Recommendations 1 and 2 of the Code (Appendix B).

6. The continued and recent use of *Tachysurus* in reference to ariid catfishes does not meet the conditions of Article 23.9.1.1 of the Code. However, the extensive use of *Pseudobagrus* in recent literature (with subjects ranging broadly from taxonomy to physiology, ecology and fisheries) suggests the present situation falls within the intention of 23.9.3. We argue that the use of *Tachysurus* in reference to Southeast Asian freshwater bagrid catfishes currently referred to *Pseudobagrus* would create significant confusion in the literature because both names (*Tachysurus* and *Pseudobagrus*) have received and continue to receive frequent use in reference to species that belong to two geographically, ecologically and taxonomically distinct groups of catfishes. It is proposed that the names *Tachysurus* La Cepède, 1803 and *Tachysurus sinensis* La Cepède, 1803 be suppressed, as the original description of *Tachysurus sinensis* La Cepède, 1803 (based solely on an illustration of a specimen that does not fit any known catfish gross anatomy) is unlikely ever to yield a satisfactory association with a recognized group. By asking for suppression we hope to reduce any future confusion.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power:

(a) to suppress the generic name *Tachysurus* La Cepède, 1803 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

- (b) to suppress the name *sinensis* La Cepède, 1803, as published in the binomen *Tachysurus sinensis* (specific name of the type species of *Tachysurus* La Cepède, 1803);
- (2) to place on the Official List of Generic Names in Zoology the name *Pseudobagrus* Bleeker, 1858 (gender: masculine), type species by monotypy *Bagrus aurantiacus* Temminck and Schlegel, 1846;
- (3) to place on the Official List of Specific Names in Zoology the name *aurantiacus* Temminck & Schlegel, 1846, as published in the binomen *Bagrus aurantiacus* (specific name of the type species of *Pseudobagrus* Bleeker, 1858);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Tachysurus* La Cepède, 1803, as suppressed in (1)(a) above;
- (5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *sinensis* La Cepède, 1803, as published in the binomen *Tachysurus sinensis* (specific name of the type species of *Tachysurus* La Cepède, 1803) and as suppressed in (1)(b) above.

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Case 3446***Anolis chrysolepis* Duméril & Bibron, 1837 (Reptilia, Squamata):
proposed precedence over *Draconura nitens* Wagler, 1830**

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Abstract. The purpose of this application, under Articles 23.6, 23.12 and 81 of the Code, is to conserve the name *Anolis chrysolepis* Duméril & Bibron, 1837, for a polytypic species of biogeographic importance. An older, less-used name *Anolis nitens* (Wagler, 1830), was rejected in a major revision (Vanzolini & Williams, 1970) as a name ‘of uncertain application [and] uncertain geographical provenance’, the first term being equivalent to nomen dubium as defined in the Code. The specific name *nitens* was published with a 4-line description in the monotypic genus *Draconura*; the type locality (‘America’) is vague and the holotype is unknown. It is indeed a nomen dubium that cannot unambiguously be assigned to any known lizard, although the possibility that the brief color description might prove diagnostic of a species waiting rediscovery cannot be rejected. Article 23.3.6 of the Code allows authors to use the junior name *Anolis chrysolepis* as valid. However, although never in prevailing usage historically, *Anolis nitens* nonetheless remains in competing use because of prior (and arguable) interpretation of Article 23. It is a major source of instability. It is proposed that the name *Anolis chrysolepis* Duméril & Bibron, 1837, be given precedence over *Draconura nitens* Wagler, 1830, whenever the two are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Reptilia; Squamata; POLYCHROTIDAE; *Anolis*; *Draconura*; *Draconura nitens*; *Anolis chrysolepis*; lizards; South America.

1. Two species-group names currently are in competing use for a polytypic species of *Anolis* that is geographically widespread in northern South America. These are (1) *Draconura nitens* Wagler, 1830 (p. 149); type locality ‘America’, holotype unknown. (2) *Anolis chrysolepis* Duméril & Bibron, 1837 (p. 94); type locality, Mana, French Guiana, based on MHNP 2436, lectotype designated by Vanzolini & Williams (1970, p. 85).

2. The generic name *Draconura* (Wagler, 1830, p. 149) and its type species by monotypy, *Draconura nitens* Wagler, 1830 (p. 149), are based on brief Latin descriptions, translated as follows (from Myers & Donnelly, 2008, p. 105): ‘*Draconura*. Dragon’s Tail. Crown and nostrils of *Dactyloa*; with somewhat inflated longitudinal throat fold; digits somewhat thickened near articulations; tail smooth, thickened and a little rounded at the base. (America.). Species: *Draconura nitens*. Green above, with a coppery gold sheen; below, whitish green with a silvery brilliance; tail totally golden green, with two bowlike dark spots above the sacral bone; thighs and digits weakly banded’.

3. The available name *Draconura* has long been considered a synonym of *Anolis* Daudin, 1802 (p. 50). However, the available species-name *Draconura nitens* cannot unambiguously be assigned to any known lizard based on the description alone (Vanzolini & Williams, 1970, p. 84; Savage & Guyer, 1989, p. 111; Myers & Donnelly, 1997, p. 58; 2008, pp. 105–107). The type locality ‘America’ is of limited use and no other author has examined the lost type specimen. Current application of *Draconura nitens* as a senior synonym of *Anolis chrysolepis* Duméril & Bibron, 1837 is based on limited subsequent usage and on the unstated premise that it does not belong to a species awaiting rediscovery.

4. Seven years after its description, Duméril & Bibron (1837, p. 91) placed *Draconura nitens* with a question mark in the synonymy of their new *Anolis refulgens* (type locality, ‘Surinam’ (locality questionable fide Hoogmoed, 1973, pp. 126–127)), a Schlegel label name. The new *Anolis chrysolepis* was named a few pages later (Duméril & Bibron, 1837, pp. 94–95).

5. Berthold (1840, p. 899; 1842, pp. 17–21; ‘1843’ [1842?], pp. 61–65) treated the taxonomy under the subheading ‘Ueber das Genus *Draconura* Wagl.’ In recognising *Draconura*, Berthold accepted *Anolis refulgens* Duméril & Bibron, 1837 over *Draconura nitens* Wagler, 1830.

6. Other 19th century authors overlooked or ignored Duméril & Bibron’s ‘?’ in the *Erpétologie Générale* and accepted *nitens* (Wagler) without question and with little or no discussion as the senior synonym of *refulgens* (Wiegmann, 1834, p. 16; Gray, 1840, p. 114; 1845, p. 207; Fitzinger, 1843, p. 69; Peters, 1863, p. 142; Bocourt, 1874, pl. 16, fig. 25; O’Shaughnessy, 1875, p. 277; Boulenger, 1885, p. 91). Use of either *nitens* or *refulgens* as a valid species name in the secondary 19th century references are mostly simple listings of little taxonomic importance, although Bocourt (1874) added head and digit drawings of the holotype of *refulgens*. Most of these authors also listed *Anolis chrysolepis* Duméril & Bibron as a valid species, with no cross-referencing to *nitens*.

7. Boulenger’s (1885) *Catalogue of Lizards* provided the starting point for several 20th century authors who were to deal with fresh anoles from Surinam, Guyana, and Venezuela. Boulenger (1885, pp. 89–90) assigned 15 geographically widespread specimens to *Anolis chrysolepis* but he had no specimens of *A. nitens*. Boulenger’s (1885, pp. 91–92) treatment of *A. nitens* appears to have been paraphrased from Duméril & Bibron’s (1837, pp. 91–94) original description of *A. refulgens*. (Boulenger correctly translated the symbols ” and ”” used by Duméril & Bibron for cm and mm, but comparison of head, body, and tail measurements show that Boulenger’s ‘108’ mm total length is a misprint for 180 mm.) At the same time, Boulenger (1885, p. 92) named *Anolis leptoscelis* (= *A. trachyderma* Cope, 1876) on the basis of upper Amazonian specimens, three of which had been previously published as *Draconura nitens* by O’Shaughnessy (1875, p. 277).

8. In the early 20th century, Fowler (1913, pp. 171–172) described as a Venezuelan subspecies *Anolis nitens bondi*; Lidth de Jeude (1917, p. 46) mentioned *Anolis nitens* in Surinam and Barbour (1934, p. 143) followed Boulenger in listing *Anolis nitens* as a senior name over *Anolis refulgens*. Finally, field experience with living animals was provided by Beebe (1944), who, on the basis of color pattern differences, recognised both *Anolis chrysolepis* and *A. nitens* as being the most abundant anoles at localities in Guyana (Kartabo) and Venezuela (Caripito).

9. Shreve (1947) saw through the extensive color variation and synonymized *Anolis chrysolepis* under *A. nitens*. But Shreve also is the first author to question the adequacy of Wagler's (1830) description of *Draconura nitens*: 'As the original description of *nitens* is not very diagnostic, there appears to be some doubt about the applicability of the name. If it cannot be used, then *chrysolepis*, which was much better diagnosed, can be employed.' (Shreve, 1947, p. 524).

10. Subsequent use of *Anolis nitens* as the valid name for a few Venezuelan specimens (Roze, 1958, p. 246; Test et al., 1966, pp. 13–14; Donoso-Barros, 1968, p. 112) derived from Shreve's action above, but *Anolis chrysolepis* was not universally discarded and both it and *Anolis nitens* were continued as valid species in the influential *Catalogue of the Neotropical Squamata* (Peters & Donoso-Barros, 1970, pp. 51, 61).

11. Vanzolini & Williams then attempted to make order out of 140 years of confusion. In formulating their concept of *Anolis chrysolepis* Duméril & Bibron, 1837 as a polytypic species, Vanzolini & Williams (1970, pp. 83–86) considered 13 specific names presumably available for 'members of the *chrysolepis* species group' (a group containing two sister species fide Vanzolini & Williams, pp. 83–86, 104). The oldest name is *Draconura nitens* Wagler, 1830, which they concluded '*is probably, but hardly with certainty* [emphasis added], applicable to some member of the *chrysolepis* group. . . The type is lost, the type locality ('America') insufficiently defined, and the usage of the name extremely confused, having been used primarily for one of the color morphs possible to *chrysolepis* group animals in Surinam (Boulenger, 1885) or British Guiana (Beebe, 1944) or Venezuela (Shreve, 1947). Such a name could be employed only arbitrarily, and we therefore set it aside.' (Vanzolini & Williams, 1970, p. 84).

12. *Draconura nitens* was viewed by Vanzolini & Williams (1970, p. 84) not as a verifiable senior synonym of *Anolis chrysolepis* but as a name of 'uncertain application [and] uncertain geographical provenance'. The first term is equivalent to *nomen dubium*, defined in the Code (p. 111) as 'a name of unknown or doubtful application'.

13. By this time, the 1837 name *Anolis refulgens* (paragraph 4) had become a *nomen oblitum* (a forgotten name, rejected under Article 23b of the Code edition then in force). Because of that and as first revisers, Vanzolini & Williams (1970, p. 85) selected *Anolis chrysolepis* Duméril & Bibron (1837) as 'the earliest satisfactory name for any member of the group', noting that it fortuitously was also the 'most familiar name in the complex'. N.B.: *Anolis refulgens* currently has the status of a rejected name only in relation to *A. c. chrysolepis*, being otherwise potentially valid under Article 23.12.2. Hoogmoed (1973, pp. 123–124, 126–127) questioned the 'Surinam' type locality and assigned the *Anolis refulgens* description to *A. chrysolepis planiceps* Troschel, 1848, 'which probably does not occur in [modern] Surinam'. If this identification is corroborated by examination of the holotype of *Anolis refulgens*, the well-known junior name *Anolis planiceps* can easily be conserved as a *nomen protectum* by provisions of Article 23.9.2, which requires no action by the Commission.

14. Hoogmoed (1973, 1979) followed the nomenclature of Vanzolini & Williams (1970), but thought that none of the reasons given 'is sufficient to discard this name [*nitens*], for the original description is completely valid and the name has been in use

until recently, alongside the now accepted name *A. chrysolepis* Duméril and Bibron *which was more widely used* [emphasis added]. The only means of discarding *nitens* Wagler and ensuring nomenclatural stability is to ask the International Commission on Zoological Nomenclature to use its plenary powers to suppress *nitens* Wagler. A suggestion to this end has been made by me to Vanzolini and Williams.’ (Hoogmoed, 1973, p. 124).

15. Savage & Guyer (1989, pp. 111–112) listed *chrysolepis* (under *Norops*) as a valid species of anole but included the name *nitens* among five nominal species ‘of uncertain generic assignment and questionably valid’, seemingly in agreement with Vanzolini & Williams (1970, p. 84). However, two years later Savage & Guyer (1991, p. 366) decided that ‘*nitens* had over 125 years of continuous usage [albeit not prevailing usage] for this species prior to 1970’ and that Vanzolini & Williams action in setting aside *Draconura nitens* ‘was not only contrary to the Code in effect at that time (and currently), but required destabilization of a long-accepted name.’

16. Hoogmoed (1973) and Savage & Guyer (1991) presumably believed that the synonymy of *Draconura nitens* and *Anolis chrysolepis* had been established by simple usage and that under edition of the Code then in effect the valid name of a taxon had to be the oldest available name applied to it, unless (as recommended by Hoogmoed) a junior name is preserved by the Commission. There is arguable merit in this interpretation. Literal reading of Article 23 in earlier editions (1961, 1985) of the Code might be interpreted to mean that, once applied, even an unidentifiable or erroneously applied subjective senior synonym not in prevailing usage must be maintained as valid under the Principle of Priority. But it seems questionable that such a consequence was originally intended by the Commission, which subsequently clarified the issue.

17. As a first underlying principle, the Code (1985, p. xiii; 1999, p. xix) ‘refrains from infringing on taxonomic judgment, which must not be made subject to regulation or restraint’. The Commission elucidated part of the issue of taxonomic judgment in the 1999 edition of the Code (Article 23.3.6), whereby a junior synonym ‘may be used as the valid name of a taxon by an author who considers the synonymy to be erroneous.’ It is here argued that Vanzolini & Williams used sound taxonomic judgment and common sense in choosing *Anolis chrysolepis* as the valid name because it is the oldest available name that fell within their concept of the species in question, whereas the older and less-used *Draconura nitens* did not and does not fit that concept because it is a name of ‘uncertain application’ (i.e. a *nomen dubium*, see paragraph 12 above).

18. Ávila-Pires (1995) accepted Savage & Guyer’s (1991) unexplained and arguable assertion that *Draconura nitens* corresponds to *A. chrysolepis planiceps* of Vanzolini & Williams. She stated that ‘Considering the argumentation by [Savage & Guyer], and the fact that up to the present no application was made to the International Commission on Zoological Nomenclature to suppress *nitens*, I think there is no reason not to adhere to the well established rule of priority. Even considering that the type of *nitens* is lost, the name has been consistently linked to one taxon by *several* [emphasis added] authors, with no discrepancy between the taxon and the original description [but see paragraph 22]. Although some specimens from ‘Suriname’ were identified as *A. chrysolepis planiceps* (see Hoogmoed, 1973) and *A. nitens* by some authors, generally the name *nitens* was associated with specimens from Guyana and

Venezuela. This area corresponds to the distribution area of *A. c. planiceps* as used by Vanzolini & Williams (1970). Thus, in agreement with former usage and with the proposal of Savage & Guyer (1991), I consider the taxon occurring in Guyana and Venezuela as the nominal subspecies of *Anolis nitens*' (Ávila-Pires, 1995, p. 88).

19. However, problems are created in arbitrarily assigning the name *Draconura nitens* to a particular geographic area for purposes of fixing the nominotypical subspecies. The name *nitens* was used by 19th century authors for at least two species, with records purportedly from 'Surinamia [and] Brasilia' (Fitzinger, 1843), from 'Surinam' (e.g. Gray, 1845; Bocourt, 1874; Boulenger, 1885), and from Pebas on the upper Amazon (O'Shaughnessy, 1875, p. 277) – none of these areas being within the range of the subspecies *Anolis chrysolepis planiceps* (except that a few 'Surinam' specimens might have come from present-day Guyana fide Hoogmoed, 1973, p. 126). Not until the 20th century was the name applied to specimens explicitly from Venezuela and Guyana (e.g. Fowler, 1913; Beebe, 1944). Selection of any area without neotype designation is equivalent to the unsanctioned concept of 'restriction of type locality' – the inventing or hypothesizing (vs. justifiable correction, Article 76.1, Recommendation 76A of the Code) of a type locality that is not binding under the Code and therefore without practical value (Myers & Böhme, 1996, p. 18).

20. Until Ávila-Pires (1995), the body of work using *Draconura nitens* (currently *Anolis nitens*) (often in parallel with *Anolis chrysolepis*) was not impressive, inasmuch as the name had been mentioned mostly in lists and by 1970 had been applied in print only to a few dozen specimens, mostly from Surinam, Guyana, and Venezuela, compared with 761 specimens later assigned by Vanzolini & Williams (1970, p. 13) to the better known name *Anolis chrysolepis*. Studies using the name *Anolis nitens* following Ávila-Pires (1995) include Gorzula & Señaris (1999), Glor et al. (2001), and McDiarmid & Donnelly (2005, p. 509).

21. No author has argued that Wagler's (1830) description of *Draconura nitens* demonstrably applies to *Anolis chrysolepis*, only that the name has priority and has been used for that species. The persistence of *Anolis nitens* as a valid name follows not from prevailing usage but from overly literal interpretation of Article 23 in earlier editions of the Code, and also perhaps from the wish to allocate as many old names as possible, 'often at a considerable stretch of imagination' (Stuart, 1933, p. 1). Nonetheless, despite the inadequacy of Wagler's description, his portrayal of color is so vivid that the name *Draconura nitens* could be assigned if a lizard were found matching that brief description – but would this hypothetical animal prove to be a rare variant of one of the known subspecies of *A. chrysolepis* s.l., or a representative of a rare or geographically restricted species not currently recognised (i.e. *A. nitens* s.s.)? The last possibility may seem unlikely, but it cannot be rejected out of hand because new species of anoles continue to be discovered. If based on a living lizard (see below), the original color description of *nitens* might prove diagnostic.

22. Myers & Donnelly (1997, pp. 58–60; 2008, pp. 102–107), treat *Draconura nitens* as a validly published and available name that nonetheless is a nomen dubium – a name not certainly applicable to any known species of lizard. These are the only authors to have explicitly compared characters from Wagler's description of *Draconura nitens* with known variation in *Anolis chrysolepis*. From the original description (paragraph 2), *Draconura nitens* is a green lizard lacking head, body, and tail patterning. In contrast, the variably dark-patterned *Anolis chrysolepis* is basically

brown or gray in life and in preservative, sometimes with a slight metallic gloss and sometimes grayish olive or with a slight greenish cast to the brown or gray ground color (Beebe, 1944, p. 197; Myers & Donnelly, 2008, p. 106) but seemingly never 'green' in any normal sense. Latin is rich in terms for shades of olive or greenish gray or brown, whereas the present participle *virescens* used by Wagler (1930) for the dorsal body color of *Draconura nitens* is one of several 'more or less accurate' synonyms of *viridis* fide Stearn (1983, p. 248). The variables of color change in preservative renders speculation about appearance of the lost holotype of *Draconura nitens* rather pointless fide Myers & Donnelly (1997, p. 59), especially when it is realised that Wagler received information on living colors of some tropical reptiles from some collectors (e.g. see color pls. in Wagler, 1824; 1828–1833). Therefore the green color and lack of dark head, body and tail markings in the original description of *Draconura nitens* cannot objectively be explained away.

23. Further comparison and discussion are given in Myers & Donnelly (2008, pp. 100–110), who follow Vanzolini & Williams (1970) in rejecting *Draconura nitens* as a valid senior synonym of *Anolis chrysolepis* and who use the junior name *Anolis chrysolepis* as allowed under authority of Article 23.3.6. The synonymy is subjectively erroneous for reasons given in paragraphs 11, 12, and 22.

24. I have come to believe that Hoogmoed (paragraph 14) was correct in suggesting that nomenclatural stability would best be served if the name *Draconura nitens* were suppressed by the Commission through its plenary power. Otherwise, the dual use of *Anolis nitens* and *Anolis chrysolepis* for the same species will remain a destabilising issue. Stabilisation through neotype designation seems unwarranted for *Draconura nitens* considering its confused history and the availability of a well-known, well-documented name that is only seven years younger. Although currently a nomen dubium, the possibility that *Draconura nitens* might be a diagnosable species waiting rediscovery (paragraph 21) argues against total suppression of the name. Conditional suppression relative to *Anolis chrysolepis* (Article 81.2.3) seems the best solution.

25. In passing, it should be noted that *Draconura nitens* is the type species of *Draconura* Wagler, 1830. *Draconura*, long in the synonymy of *Anolis* Daudin, 1802, has not been used as a valid name since the middle of the 19th century. Fitzinger (1843, p. 69) mentioned Wagler's *Draconura* but emended it to *Dracontura*, an unjustified emendation that becomes a junior objective synonym of *Draconura* (Articles 19.1, 33.2.1, 33.2.3). Acting as First Revisers (Article 24.2), Savage & Guyer (1991, 2004) reduced the likelihood that *Draconura* could ever be resurrected by directing that the names *Dactyloa* Wagler, 1830 and *Norops* Wagler, 1830 be given precedence over *Draconura* Wagler, 1830 if these names are ever thought to be applicable to the same taxon. Fitzinger (1843, p. 68) additionally erected the family-group name DRACONTURAE, which must be corrected to DRACONURIDAE Fitzinger, 1843 (Articles 11.7.1.3, 29.2, 32.5.3, 35.4.1 of the Code).

26. For nearly 40 years, the concept of the polytypic species *Anolis chrysolepis* has rested on the pioneering work of Vanzolini & Williams (1970), as most recently corroborated and amplified under the name *A. nitens* in Ávila-Pires' (1995) important monograph of Amazonian lizards. Vanzolini & Williams' (1970) study was contemporaneous with the ornithological investigations of Haffer (1969). These two studies advanced the theory that Quaternary climatic cycles induced contractions and expansions of tropical forest, leading to infraspecific differentiation and speciation of

plants and animals in forest refugia. A large biogeographic literature followed, and the myth of ancient, uniformly stable tropical forest unaffected by the vagaries of time was abandoned. Vanzolini & Williams (1970, pp. 12–13) demonstrated multiple levels of differentiation in *A. chrysolepis*, but believed that the infraspecific units recognised nomenclaturally are ‘closest to species difference, and indicative, perhaps, of past and future potential species formation’. Indeed, the possibility of sibling species seems suggested by recent demonstration of substantial molecular divergence in the *A. chrysolepis* complex (Glor et al., 2001, p. 2666). It therefore is of broad interest that species-group names be accurately and unambiguously assigned in this geographic complex.

28. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *chrysolepis* Duméril & Bibron, 1837, as published in the binomen *Anolis chrysolepis*, precedence over the name *nitens* Wagler, 1830, as published in the binomen *Draconura nitens*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *chrysolepis* Duméril & Bibron, 1837, as published in the binomen *Anolis chrysolepis* and as defined by the lectotype (MHNP 2436, Mana, French Guiana) designated by Vanzolini & Williams (1970), with the endorsement that it is to be given precedence over the name *nitens* Wagler, 1830, as published in the binomen *Draconura nitens*, whenever the two are considered to be synonyms;
 - (b) *nitens* Wagler, 1830, as published in the binomen *Draconura nitens*, with the endorsement that it is not to be given priority over the name *chrysolepis* Duméril & Bibron, 1837, as published in the binomen *Anolis chrysolepis*, whenever the two are considered to be synonyms.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Comment on the proposed designation of a neotype for *Conus jaspideus* Gmelin, 1791

(Case 3396; see BZN 64: 144–148)

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We disagree with the assumption in the application that Vink's (1991) neotype designation for *Conus jaspideus* is invalidated by Clench's (1942) previously unnoticed lectotype designation. The application states (para. 5): '... Vink's (1991) designation of a neotype cannot supersede the existing lectotype, even in the situation where the type series has not been extant'.

This contradicts Article 75.1 which says neotypes can be designated 'when no name-bearing type specimen (e.g., holotype, lectotype, syntype or prior neotype) is believed to be extant. ...'. Inasmuch as the authors confirm that none of the specimens of the original type series, including the lectotype, can be traced, their mention of an 'existing lectotype' (para. 5) is a misstatement and Vink's neotype designation (which they seek to confirm) stands. Also, Article 75.8 pertains only to the rediscovery of name-bearing types themselves, not to overlooked lectotype designations. There is thus no need for action by the Commission.

Comments on the proposed conservation of the usage of the generic name of *Drosophila* Fallén, 1823 (Insecta, Diptera) by fixation of *Drosophila melanogaster* Meigen, 1830 as type species.

(Case 3407; see BZN 64: 238–242; BZN 65: 55–57)

(1) Hans Silfverberg

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I wish to express my strong support for the application. *Drosophila melanogaster* is one of the few names in zoology that are recognised as such within numerous biological disciplines, and it is one of the first names that every student of biology meets having entered the field. As such its preservation is a matter of importance far beyond the field of taxonomy. As the object of the Code of Nomenclature is to promote stability and universality, it is difficult to think of a case where a decision by the Commission would be more important.

As the situation is now, the genus *Drosophila* includes a huge number of species, and it is well known that many specialists would prefer to divide it into more natural groups, were it not for the fact that *melanogaster* would belong to another genus; the expected confusion has been a strong deterrent. In fact, here the nomenclature rules have actually interfered with systematic work. To agree to the proposal would free research. As of yet, the genus has not been dismembered, and a change of subgeneric names would be a matter concerning a comparatively small number of taxonomists.

There have been numerous trifling cases, where usage has been preserved for names that only specialists recognise, and in my opinion no real confusion would have resulted, even if many of those names had been changed. This case is different, its implications are of the widest nature, and I hope the Commission will approve the application.

(2) Yves Roisin

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I tend to be conservative and believe that the Commission should not use its plenary powers every now and then to rescue junior names favoured by a mere handful of researchers, but I agree with Polaszek (BZN 65: 55) that if there be one binomen in zoological nomenclature that should be cast in concrete, it is *Drosophila melanogaster* Meigen, 1830.

For decades, this species has been the most widely used model in genetics and developmental biology. The supremacy of *D. melanogaster* over its congeners in current research is still overwhelming: a search in ISI Web of Science® with the species name as topic resulted in 26,608 hits for *D. melanogaster* since 1987 (checked on 24 April 2008), against 11 for *D. funebris*, the present type species of *Drosophila* Fallén. The other *Drosophila* of the *funebris*-group defended by Yassin (BZN 65: 56) lay also far behind *D. melanogaster*, the most frequently cited of these being *D. virilis* with 368 records. Note that *D. simulans* Sturtevant, 1919, one of the closest relatives of *D. melanogaster*, fares better (893 records). This species, important in speciation studies, would also be preserved from a change of genus by the designation of *D. melanogaster* as type species of *Drosophila*.

It is clear that with the development of phylogenetic knowledge, the strict application of the Code would soon result in the transfer of *D. melanogaster* to *Sophophora* Sturtevant. Although some strict taxonomists would perhaps acknowledge such a change, a multitude of molecular and developmental biologists would regard with utmost incomprehension their flagship species renamed *Sophophora melanogaster*. This would cause extreme confusion, especially because so many non-taxonomists are involved. This is an exceptional case, where the whole credibility of the Commission is at stake. I highly recommend that the Commission vote in favour of the application of van der Linde et al. (BZN 64: 238–242).

Comment on the proposed conservation of the generic names *Trigonostomum* Schmidt, 1852 (Platyhelminthes, TRIGONOSTOMIDAE) and *Trigonostomus* Brenske, 1893 (Coleoptera, SCARABAEIDAE) and proposed emendation of the current spelling of TRIGONOSTOMINA Ohaus, 1912 (Coleoptera, SCARABAEIDAE) to remove homonymy with TRIGONOSTOMIDAE Graff, 1905 (Platyhelminthes)
(Case 3405; see BZN 64: 218–223)

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I support Willems's and Krell's application to conserve the usage of the generic name *Trigonostomum* Schmidt, 1852 for a group of marine flatworms (family TRIGONOSTOMIDAE) and remove the homonymy between the chafer subtribe name TRIGONOSTOMINA Ohaus, 1912 (type genus *Trigonostomum* Burmeister, 1844; family SCARABAEIDAE). For the scarab beetle genus, it is reasonable to use the incorrect subsequent spelling *Trigonostomus* Brenske, 1893 as a substitute name for *Trigonostomum* Burmeister, 1844. Additionally, adopting the stem of this name for the scarab beetle tribe will remove homonymy with Graff's flatworm family name. These actions will help to maintain stability and universality of nomenclature.

I wish to correct the species composition in the scarab beetle genus *Trigonostomum* Burmeister. The genus is comprised of nine species (Machatschke, 1972, 1974): *T. djampeanum* Ohaus, 1912; *T. mascarenum* Ohaus, 1941, *T. melolonthoides* Fairmaire, 1896; *T. mucoreum* Burmeister, 1844; *T. oedipus* Fairmaire, 1903; *T. scutatum* Fairmaire, 1896; *T. sudanicum* Ohaus, 1935; *T. ursus* Arrow, 1911; *T. sericans* Thomson, 1958. Based on the proposed emendation, the species names would change in agreement with the new genus.

It should be noted that Machatschke (1972, p. 339) referred to the scarab beetle subtribe as 'TRIGONODOSTOMINA'. This spelling was not used by Machatschke (1965), and it is apparently a lapsus. Using this misspelling, in my view, would not help to preserve nomenclatural stability and should be avoided.

Additional References

- Machatschke, J.W.** 1965. Coleoptera Lamellicornia. Fam. Scarabaeidae, Subfam. Rutelinae, Section Rutelinae Orthochilidae. Pp. 1–145 in: *Genera Insectorum*, Fasc. 199C.
Machatschke, J.W. 1972. Scarabaeoidea: Melolonthidae, Rutelinae. *Coleopterorum Catalogus, Supplementa*, 66(1): 1–361.
Machatschke, J.W. 1974. Scarabaeoidea: Melolonthidae, Rutelinae. *Coleopterorum Catalogus, Supplementa*, 66(2): 363–429.

Comments on the proposed conservation of *Buettneria* Case, 1922 (Amphibia)
(Case 3420; see BZN 64(4): 252–254; BZN 65(1): 60–62)

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I am writing to oppose the petition of Lucas et al. for the ICZN to use their plenary power to conserve the Late Triassic metoposaurid generic name *Buettneria* Case, 1922. I support the proposals in the comment by Hausdorf (BZN 65: 60–62) to suppress both the metoposaurid genus *Buettneria* Case, 1922 and the Orthopteran genus *Buettneria* Karsh, 1888, in favour of the senior homonym *Buettneria* Simroth, 1888 (Mollusca). His comment also illustrated that I, along with Lucas et al., had failed to notice the senior homonym, *Buettneria* Simroth, 1888 (Mollusca, Gastropoda). Hausdorf's argument against the conservation of the metoposaurid generic name cited Van Goethem (1977) in outlining the priority of *Buettneria* Simroth, 1888 over *Buettneria* Karsch, 1888 (1889), and *Buettneria* Case, 1922.

The metoposaurid genus *Buettneria* Case, 1922, is not without change in the past. The metoposaurid taxon *Buettneria perfecta* (*Koskinonodon perfectus*) was synonymized by Colbert and Imbrie (1956) as a junior synonym of the metoposaurid genus *Eupelor* Cope, 1868 and then Chowdhury (1965) synonymized the taxon with the metoposaurid genus *Metoposaurus* Lydekker, 1890. In Hunt's (1993) revision of the Metoposauridae, he resurrected *Buettneria* Case, 1922 and listed *Metoposaurus* (in part), *Koskinonodon*, *Borborophagus*, and *Eupelor* (in part) in the synonymy of the genus. This shows that the metoposaurid genus has not had a stable past and the suppression of *Buettneria* Simroth, 1888, in favour of a junior homonym for stability of nomenclature is not justified. I myself have used the name *Buettneria* Case, 1922 in the past (Houle & Mueller, 2004) and the preoccupation of the generic name was brought to my attention through this research.

My original petition to the Commission in 2005 (Case 3358) received the response (Andrew Polaszek, pers. comm., 24 July 2006) that, after review, a ruling by the Commission was unnecessary as the petition was straightforward and just needed to be published. The fact that Hausdorf (BZN 65: 60–62) points out that the 'senior' homonym I cited was actually a junior homonym of *Buettneria* Simroth, 1888, re-enforces the proposal that the metoposaurid genus *Buettneria* Case, 1922, should be suppressed and replaced with its junior synonym *Koskinonodon* Branson & Mehl, 1929.

Additional References.

Chowdhury, T. Roy. 1965. A new metoposaurid amphibian from the upper Triassic Maleri Formation of Central India. *Philosophical Transactions of the Royal Society of London*, Series B, **250**: 1–52.

Colbert, E.H. & Imbrie, J. 1956. Triassic metoposaurid amphibians. *American Museum of Natural History Bulletin*, **110**(6): 399–452.

Houle, M.O. & Mueller, B. 2004. A New Occurrence of *Buettneria bakeri* (Temnospondyli: Metoposauridae) from the Norian (Cooper Canyon Formation, Dockum Group) of West Texas. *Journal of Vertebrate Paleontology*, **24**(3): 73A.

(2) Spencer G. Lucas, Larry F. Rinehart & Justin A. Spielmann

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In his comment, Hausdorf (BZN 65(1): 60–62) points out that the generic name of the African gastropod *Buettneria* Simroth, 1888 has priority over the generic names *Buettneria* Karsch, 1889 (an African insect) and *Buettneria* Case, 1922 (a fossil amphibian). He thus does not support our application to suppress *Buettneria* Karsch, 1889 in order to conserve *Buettneria* Case, 1922, and he concludes it would best serve the stability and universality of nomenclature to conserve *Buettneria* Simroth, 1888 and replace its two junior homonyms with other names.

However, Hausdorf (BZN 65(1): 60–62) fails to point out how little use there has been of the generic name *Buettneria* Simroth, 1888, so that like *Buettneria* Karsch, 1889 it is a virtual nomen oblitum. Thus, after Simroth's (1888) introduction of the name and his subsequent replacement of the name with *Buettnerella* Simroth, 1910 (in the mistaken belief that Karsch's introduction of the name *Buettneria* had priority over his own), we can find no published usage of the name *Buettneria* Simroth, 1888 that meets the criteria required by Article 23.9 of the Code until Van Gotheim (1975). This means that *Buettneria* Simroth, 1888 was a nomen oblitum between 1910 and 1975.

Van Gotheim (1975) then used the name *Buettneria* to introduce a new species of the genus. Van Gotheim (1977) pointed out that *Buettneria* Simroth, 1888 had priority over *Buettneria* Karsch, 1889. Yet, during the subsequent 30 years, the few uses of *Buettneria* Simroth, 1888, such as Schileyko (2002), very closely approach the conditions set in Article 23.9.1 of the Code. This means that *Buettneria* Simroth, 1888 continues to be a virtual nomen oblitum.

In contrast, *Buettneria* Case, 1922 is a widely used name in the technical and non-technical literature of palaeontology, appearing in many articles, monographs and textbooks (see BZN 64(4): 252–254). This is because the name has been frequently applied to a common Late Triassic amphibian from North America with close relatives or possible records in Europe, Africa, Madagascar and India. We have provided the Secretariat with a sample list of 75 published usages of *Buettneria* Case, 1922, by 45 authors in the 85 year interval 1922–2007, and many more can be compiled. The list only includes usages in the text of scientific papers and books; no usages in references cited or popular publications are listed. *Buettneria* Case, 1922 thus meets the conditions of Article 23.9.1.2 of the Code.

Therefore, in the interests of stability of nomenclature, we believe that suppression of the obscure and little used name *Buettneria* Simroth, 1888 is advisable to avoid confusion. The replacement name *Buettnerella* Simroth, 1910 is already available for this taxon.

In addition to the proposals published in BZN 64(4): 253, the International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *Buettneria* Simroth, 1888 and all uses of this name for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Buettneria* Simroth, 1888, as suppressed in (1) above.

Additional References

- Schileyko, A.A.** 2002. Treatise on Recent terrestrial pulmonate molluscs, Part 9. Helicarionidae, Gymnarionidae, Rhysotinidae, Ariophantidae. *Ruthenica Supplement*, **2**: 1167–1307.
- Simroth, H.** 1888. Über die azorisch-portugiesische Nacktschneckenfauna und ihre Beziehungen (Vorlaufe Mittheilung). *Zoologischer Anzeiger*, **11**: 86–90.
- Simroth, H.** 1910. Lissopode Nacktschnecken von Madagaskar den Comoren und Mauritius. Unter Berücksichtigung verwandter Arten. Pp. 576–622, pls. 25–26 in Voetzkow, A. (Ed.), *Reise in Ostafrika in der Jahren 1903–1905. Wissenschaftliche Ergebnisse*, vol. 2. Schweizerbart, Stuttgart.
- Van Goetheim, L.** 1975. Descriptions et diagnoses préliminaires d'espèces et genres nouveaux d'Urocyclinae. *Revue de Zoologie Africaine*, **89**: 859–870.
- Van Goetheim, L.** 1977. Révision systématique des Urocyclinae (Mollusca, Pulmonata, Urocyclidae). *Musée Royal de l'Afrique Centrale, Tervuren, Belgique, Annals, Sciences Zoologiques*, **218**: i–xi, 1–355.

OPINION 2202 (Case 3368)***Eatoniella* Dall, 1876 and EATONIELLIDAE Ponder, 1965 (Mollusca, Gastropoda): conserved**

Abstract. The Commission has conserved the generic name *Eatoniella* Dall, 1876 and the family-group name EATONIELLIDAE Ponder, 1965 for a species-rich group of small marine gastropods from the southern hemisphere by suppression of their senior subjective synonyms *Paludestrina* d'Orbigny, 1840 and PALUDESTRINIDAE Newton, 1891.

Keywords. Nomenclature; taxonomy; EATONIELLIDAE; PALUDESTRINIDAE; *Paludestrina*; *Eatoniella*; *Paludina nigra*; *Paludestrina nigra*; *Eatoniella kerguelensis*; *Eatoniella latina*; Indian Ocean; Western Pacific; gastropods.

Ruling

- (1) Under the plenary power it is hereby ruled that the following names are suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Paludestrina* d'Orbigny, 1840;
 - (b) PALUDESTRINIDAE Newton, 1891.
- (2) The name *Eatoniella* Dall, 1876 (gender: feminine), type species by subsequent designation of Nevill (1885) *Eatonia kerguelensis* E.A. Smith, 1875, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *kerguelensis* E.A. Smith, 1875, as published in the binomen *Eatonia kerguelensis* (specific name of the type species of *Eatoniella* Dall, 1876);
 - (b) *latina* Marincovich, 1973, as published in the binomen *Eatoniella latina*, replacement name for *Paludina nigra* d'Orbigny, 1840.
- (4) The name EATONIELLIDAE Ponder, 1965, type genus *Eatoniella* Dall, 1876, is hereby placed on the Official List of Family-Group Names in Zoology.
- (5) The name *Paludestrina* d'Orbigny, 1840, as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.
- (6) The name PALUDESTRINIDAE Newton, 1891, as suppressed in (1)(b) above, is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

History of Case 3368

An application to conserve the names *Eatoniella* Dall, 1876 and EATONIELLIDAE Ponder, 1965, which are junior subjective synonyms of *Paludestrina* d'Orbigny, 1840 and PALUDESTRINIDAE Newton, 1891 respectively, was received from Dietrich Kadolsky (*Sanderstead, Surrey, U.K.*) on 9 November 2005. After correspondence the case was published in BZN 64(1): 7–11 (March 2007). The title, abstract and

keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN **64**: 9–10. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 16: Alonso-Zarazaga, Bogutskaya, Brothers, Fautin, Halliday, Krell, Kullander, Lamas, Mawatari, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – 3: Grygier, Kottelat and Ng.

No votes were received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Grygier, voting against the proposals, said that the goals are acceptable, but the process should have been simply to confirm the currently accepted but wrong type species, *Cyclostoma acutum* Draparnaud, 1805, as the type of *Paludestrina* by suppression of earlier type designations. Ng, also voting against the proposals, said that the case for a better usage as argued by the applicant is not in dispute but the usage of these names is so sporadic and mainly in a small scientific circle as to indicate that a strict application of the Code makes more sense. He saw neither broad usage nor non-specialist attention that merits Commission intervention. Grygier also noted that the last two lines of the abstract err in calling a synonym a replacement name.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

- Eatoniella* Dall, 1876, in Kidder, J.H., *Bulletin of the United States National Museum*, **3**: 42.
 EATONIELLIDAE Ponder, 1965, *Record of the Auckland Institute and Museum*, **6**(2): 50–51.
kerguelensis, *Eatonia*, E.A. Smith, 1875, *Annals and Magazine of Natural History*, (4)**16**(91): 70–71.
latina, *Eatoniella*, Marincovich, 1973, *Natural History Museum Los Angeles County Science Bulletin*, **16**: 26.
Paludestrina d'Orbigny, 1840. *Voyage dans l'Amérique méridionale [...] exécuté pendant les années 1826, 1827, 1828, 1829, 1830, 1831, 1832 et 1833*, **5**(3): Mollusques. P. 381.
 PALUDESTRINIDAE Newton, 1891, *Systematic list of the Frederick E. Edwards collection of British Oligocene and Eocene mollusca in the British Museum (Natural History), with references to the type-specimens from similar horizons contained in other collections belonging to the geological department of the museum*, p. 226.

OPINION 2203 (Case 3343)***Gigantopecten* Rovereto, 1899 and *Lissochlamys* Sacco, 1897 (Mollusca, Bivalvia, PECTINIDAE): names conserved**

Abstract. The Commission has conserved the generic names *Gigantopecten* Rovereto, 1899 and *Lissochlamys* Sacco, 1897 for two genera of common Neogene pectinid bivalves by declaring that the names *Macrochlamis* Sacco, 1897 and *Lissochlamis* Sacco, 1897 are incorrect original spellings of *Macrochlamys* and *Lissochlamys*, respectively.

Keywords. Nomenclature; taxonomy; Mollusca; Bivalvia; PECTINIDAE; *Macrochlamys*; *Macrochlamis*; *Lissochlamys*; *Lissochlamis*; *Gigantopecten*; *Gigantopecten latissimus*; *Lissochlamys excisa*; Cenozoic; Neogene; Europe.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) *Macrochlamis* Sacco, 1897 is an incorrect original spelling of *Macrochlamys*;
 - (b) *Lissochlamis* Sacco, 1897 is an incorrect original spelling of *Lissochlamys*.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Gigantopecten* Rovereto, 1899 (gender: masculine), type species *Ostrea latissima* Brocchi, 1814 by original designation for the replaced generic name *Macrochlamys* Sacco, 1897;
 - (b) *Lissochlamys* Sacco, 1897 (gender: feminine), type species by original designation *Pecten excisus* Bronn, 1831.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *latissima* Brocchi, 1814, as published in the binomen *Ostrea latissima* (specific name of the type species of *Gigantopecten* Rovereto, 1899, the replacement name of *Macrochlamys* Sacco, 1897);
 - (b) *excisus* Bronn, 1831, as published in the binomen *Pecten excisus* (specific name of the type species of *Lissochlamys* Sacco, 1897).
- (4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Macrochlamis* Sacco, 1897 (an incorrect original spelling of *Macrochlamys* as ruled in (1)(a) above);
 - (b) *Lissochlamis* Sacco, 1897 (an incorrect original spelling of *Lissochlamys* as ruled in (1)(b) above);
 - (c) *Macrochlamys* Sacco, 1897 (a junior homonym of *Macrochlamys* Gray, 1847);
 - (d) *Grandipecten* Cossmann, 1914 (an unnecessary replacement name for *Macrochlamys* Sacco, 1897).

History of Case 3343

An application to conserve the generic names *Gigantopecten* Rovereto, 1899 and *Lissochlamys* Sacco, 1897 was received from Thomas R. Waller (*National Museum of Natural History, Smithsonian Institution, Washington, D.C. U.S.A.*) and Madeleine Bongrain (*Arudy, France*) on 20 March 2005. After correspondence the case was published in BZN 63(2): 155–162 (June 2006). The title, abstract and keywords of the case were published on the Commission's website. Bouchet submitted a comment suggesting a different approach and an alternative set of proposals which was published in BZN 64(2): 118–119. The second set of proposals received minor editorial modifications before presentation to the Commission for voting.

Decision of the Commission

On 1 January 2008 the members of the Commission were invited to vote on the proposals published in BZN 63: 157 and 64: 118 (modified proposals). At the close of the voting period on 1 March 2008 the votes were as follows:

Proposals published in BZN 63: 157:

Affirmative votes – 2: van Tol and Zhang.

Negative votes – 17: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Ng, Pape, Patterson, Rosenberg and Štys.

No votes were received from Lim. Papp abstained. Kerzhner, Minelli and Pyle were on leave of absence.

Proposals published in BZN 64: 118 (modified):

Affirmative votes – 14: Alonso-Zarazaga, Bouchet, Brothers, Fautin, Halliday, Kottelat, Kullander, Lamas, Mawatari, Ng, Papp, Patterson, Rosenberg and Štys.

Negative votes – 6: Bogutskaya, Grygier, Krell, Pape, van Tol and Zhang.

No votes were received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Alonso-Zarazaga pointed out that it is possible that the potentially valid name MACROCHLAMISINAE Kasum-Zade, 2003 is formed on *Macrochlamis*, an incorrect original spelling of *Macrochlamys* Sacco, 1897. According to Article 35.4.1 this should then be corrected to MACROCHLAMYDINAE Kasum-Zade, 2003, since the stem of *chlamys* is *chlamyd-*. Grygier commented that the matters concerning the two genera *Gigantopecten* and *Lissochlamys* are independent of each other and should have been voted on separately. He felt that the urgency for conserving *Lissochlamys* is much less than that for conserving *Gigantopecten* based on the much smaller number of recent references cited with respect to the former matter and the fact that only the two spellings (not two completely different names) are at stake. In light of Bouchet's comment about *-chlamys* being a common genus-name ending for scallops, he would have also liked to know whether there are any other genus names ending in '*-chlamis*' enjoying prevailing usage in other groups. Grygier adds that the main reason for his negative vote on the first set of proposals was the more comprehensive nature of the alternative set of proposals. However, there too, conservation of *Lissochlamys* appeared to Grygier to be more a matter of 'curatorial routine' than a matter of demonstrated urgency. In addition, he felt that the alternative set of proposals should have clarified that the date of publication, 1897, pertains to the 1897a paper cited in the original proposal. Since the voting paper calls for a single vote on all the issues

involved, Grygier somewhat reluctantly voted against both sets of proposals, and pointed out that the instructions on the voting sheet might have been ambiguous as to the need to vote for both sets of proposals. Ng spoke positively about the modified proposals, saying they made an easier 'legal' solution to the problem.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

- excisus*, *Pecten*, Bronn, 1831, *Italiens Tertiär-Gebilde und deren organische Einschlüsse*, p. 102.
Gigantopecten Rovereto, 1899, *Revue critique de Paléozoologie*, 3(2): 90.
Cossmann, 1914 in Cossmann, M. & Peyrot, A. 1914, *Actes de la Société Linnéenne de Bordeaux*: 68, p. 73.
latissima, *Ostrea*, Brocchi, 1814, *Conchiologia fossile subapennina con osservazioni geologiche sugli Appenini et sul suolo adiacente*, vol. 2, p. 101.
Lissochlamis Sacco, 1897, *Bollettino dei Musei di Zoologia ed Anatomia comparata della Reale Università di Torino*, 12(298): 102.
Lissochlamys Sacco, 1897, (30 December). *I molluschi dei terreni terziarii del Piemonte e della Liguria*, Parte 24, p. 46.
Macrochlamis Sacco, 1897, *Bollettino dei Musei di Zoologia ed Anatomia comparata della Reale Università di Torino*, 12(298): 101.
Macrochlamys Sacco, 1897, (30 December). *I molluschi dei terreni terziarii del Piemonte e della Liguria*, Parte 24, p. 32.

OPINION 2204 (Case 3394)***Etisus* H. Milne Edwards, 1834 and *Chlorodiella* Rathbun, 1897
(Crustacea, Decapoda, Brachyura): conserved**

Abstract. The Commission has ruled that the current usage of the generic names *Etisus* H. Milne Edwards, 1834 and *Chlorodiella* Rathbun, 1897 for two genera of brachyuran crabs is conserved by suppressing the generic name *Clorodius* A.G. Desmarest, 1823, and that the type species of the genus *Chlorodiella* Rathbun, 1897 is *Cancer niger* Forskål, 1775.

Keywords. Nomenclature; taxonomy; CLORODIINAE; CHLORODIELLINAE; ETISINAE; *Chlorodiella*; *Chlorodius*; *Clorodius*; *Etisus*; *Fucicola*; *Chlorodiella niger*.

Ruling

- (1) Under the plenary power it is hereby ruled that the generic name *Clorodius* A.G. Desmarest, 1823 is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) It is hereby ruled that the type species of the genus *Chlorodiella* Rathbun, 1897 is *Cancer niger* Forskål, 1775.
- (3) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Chlorodiella* Rathbun, 1897, type species *Cancer niger* Forskål, 1775, as ruled in (2) above;
 - (b) *Etisus* H. Milne Edwards, 1834, type species by subsequent designation Glaessner (1929) *Cancer dentatus* Herbst, 1785.
- (4) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *dentatus* Herbst, 1785, as published in the binomen *Cancer dentatus*, specific name of the type species of the genus *Etisus* H. Milne Edwards, 1834;
 - (b) *niger* Forskål, 1775, as published in the binomen *Cancer niger*, specific name of the type species of the genus *Chlorodiella* Rathbun, 1897, as ruled in (2) above.
- (5) The following names are hereby placed on the Official List of Family-Group Names in Zoology:
 - (a) CHLORODIELLINAE subfam. nov. (type genus *Chlorodiella* Rathbun, 1897);
 - (b) ETISINAE Ortmann, 1893 (type genus *Etisus* H. Milne Edwards, 1834).
- (6) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Chlorodius* H. Milne Edwards, 1834, a misspelling of *Clorodius* A.G. Desmarest, 1823;
 - (b) *Clorodius* A.G. Desmarest, 1823, as suppressed in (1) above;
 - (c) *Fucicola* Gistel, 1848, a junior homonym of *Fucicola* Menke, 1844.

(7) The following names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

- (a) CLORODIINAE Dana, 1851, a family-group name based on the generic name *Clorodius* A.G. Desmarest, 1823, as suppressed in (1) above;
- (b) CHLORODIINAE Dana, 1851, a family-group name based on the generic name *Chlorodius*, a misspelling for *Clorodius* A.G. Desmarest, 1823.

History of Case 3394

An application for the conservation of usage of the generic names *Etisus* H. Milne Edwards, 1834 and *Chlorodiella* Rathbun, 1897 by suppression of their senior synonym *Clorodius* A.G. Desmarest, 1823, was received from Peter K.L. Ng (*National University of Singapore, Singapore*) and L.B. Holthuis (*National Museum of Natural History, Leiden, The Netherlands*) on 19 June 2006. After correspondence the case was published in BZN 64(1): 19–24 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 December 2007 the members of the Commission were invited to vote on the proposals published in BZN 64: 22. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 20: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Ng, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No vote was received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

- Chlorodiella* Rathbun, 1897, *Proceedings of the Biological Society of Washington*, **11**: 157.
Etisus H. Milne Edwards, 1834, *Histoire naturelle des Crustacés, comprenant l'anatomie, la physiologie et la classification de ces animaux*, vol. 1, p. 410.
dentatus, Cancer, Herbst, 1785, *Versuch einer Naturgeschichte der Krabben und Krebse, nebst einer systematischen Beschreibung ihrer verschiedenen Arten*, vol. 1, p. 186.
niger, Cancer, Forskål, 1775, *Descriptiones Animalium Avium, Amphibiorum, Piscium, Insectorum, Vermium; quae in Itinere orientali observavit. Petrus Forskal. Post Mortem Auctoris editit Carsten Niebuhr. Adjuncta est materia Medica Kahirina*, p. 89.
CHLORODIELLINAE subfam. nov. Ng & Holthuis, 2007, *Bulletin of Zoological Nomenclature*, **64**(1): 22.
ETISINAE Ortmann, 1893, *Zoologische Jahrbücher (Systematik)*, **7**: 429.
Chlorodius H. Milne Edwards, 1834, *Histoire naturelle des Crustacés, comprenant l'anatomie, la physiologie et la classification de ces animaux*, vol. 1, p. 399.
Clorodius A.G. Desmarest, 1823, *Dictionnaire des sciences naturelles*, **28**: 228.
Fucicola Gistel, 1848, *Naturgeschichte de Thierreiches für höhere Schulen*, vol. 2, p. 425.
CLORODIINAE Dana, 1851, *American Journal of Science and Arts*, (2)**12**(34): 125.
CHLORODIINAE Dana, 1851, *American Journal of Science and Arts*, (2)**12**(34): 125.

OPINION 2205 (Case 3376)***Lithocolletis oxyacanthae* Frey, 1855 (currently *Phyllonorycter oxyacanthae*; Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Lithocolletis oxyacanthae* Frey, 1855 is conserved for a European leaf-mining moth by giving it precedence over the senior synonym *Lithocolletis pomonella* Zeller, 1846.

Keywords. Nomenclature; taxonomy; Lepidoptera; GRACILLARIIDAE; *Phyllonorycter*; *Phyllonorycter oxyacanthae*; *Phyllonorycter pomonella*; leaf miner moth; Europe.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *oxyacanthae* Frey, 1855, as published in the binomen *Lithocolletis oxyacanthae*, has precedence over the name *pomonella* Zeller, 1846, as published in the binomen *Lithocolletis pomonella*, whenever the two are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *oxyacanthae* Frey, 1855, as published in the binomen *Lithocolletis oxyacanthae*, with the endorsement that it is to be given precedence over the name *pomonella* Zeller, 1846, as published in the binomen *Lithocolletis pomonella*, whenever the two are considered to be synonyms;
 - (b) *pomonella* Zeller, 1846, as published in the binomen *Lithocolletis pomonella*, with the endorsement that it is not to be given priority over the name *oxyacanthae* Frey, 1855, as published in the binomen *Lithocolletis oxyacanthae*, whenever the two are considered to be synonyms.

History of Case 3376

An application to conserve the usage of the specific name *Lithocolletis oxyacanthae* Frey, 1855 (Insecta, Lepidoptera) was received from Paolo Triberti (*Museo Civico di Storia Naturale, Verona, Italy*) on 5 January 2006. This species is widespread, with larvae that mine leaves of hawthorn and other ROSACEAE in Europe. *Lithocolletis pomonella* Zeller, 1846 has recently been accepted as a senior synonym of *Lithocolletis oxyacanthae*, however the former name has had a complicated history of synonymy and misuse. A revision of Palearctic *Phyllonorycter* species by Triberti (2007) included clarification of the taxonomy of *Phyllonorycter oxyacanthae* (Frey, 1855) with the aim of this application to stabilise the specific name. After correspondence the case was published in BZN 64(2): 96–99 (June 2007). The title, abstract and keywords of the case were published on the Commission's website. Three supportive comments were published in BZN 64(2): 126–127.

Decision of the Commission

On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 97. At the close of the voting period on 1 June 2008 the votes were as follows:

Affirmative votes – 16: Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Papp, Rosenberg, Štys, van Tol and Zhang.

Negative votes – 1: Pape.

No votes were received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Voting for the proposals, Halliday pointed out that he hoped Triberti (2007) was published before 30 June 2007, as, if not, then the species name *hostis* is a nomen nudum in the case and in one of the supporting comments. Grygier also voted for the proposals, but said he hesitated slightly owing to the lack of any numerical data or list of citations demonstrating the supposedly consistent use of *oxyacanthae*.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

oxyacanthae, *Lithocolletis*, Frey, 1855, *Mittheilungen der Naturforschenden Gesellschaft in Zürich*, **3**: 606–607.

pomonella, *Lithocolletis*, Zeller, 1846, *Linnaea Entomologica*, **1**: 201.

OPINION 2206 (Case 3355)**ORTHOCLADIINAE Kieffer, 1911 and *Orthocladius* van der Wulp, 1874 (Diptera, CHIRONOMIDAE): subfamilial name conserved and type species fixed**

Abstract. The Commission has conserved the usage of the names ORTHOCLADIINAE Kieffer, 1911 and *Orthocladius* van der Wulp, 1874 for a well-known group of non-biting midges by designation of *Chironomus oblidens* Walker, 1856 as the type species.

Keywords. Nomenclature; taxonomy; CHIRONOMIDAE; ORTHOCLADIINAE; ERETMOPTERIDAE; CLUNIONINAE; *Orthocladius*; *Eretmoptera*; *Clunio*; *Orthocladius oblidens*; non-biting midges.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the family-group name ORTHOCLADIINAE Kieffer, 1911 and other family-group names based on *Orthocladius* van der Wulp, 1874 are given precedence over ERETMOPTERINAE Kellogg, 1900 and other family-group names based on *Eretmoptera* Kellogg, 1900, as well as over CLUNIONINAE Kieffer, 1906 and other family-group names based on *Clunio* Haliday, 1855, whenever the respective type genera are placed in the same family-group taxon;
 - (b) all previous fixations of the type species for the nominal genus *Orthocladius* van der Wulp, 1874 are set aside and *Chironomus oblidens* Walker, 1856 is designated as the type species of *Orthocladius* van der Wulp, 1874.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Orthocladius* van der Wulp, 1874 (gender: masculine), type species *Chironomus oblidens* Walker, 1856, as ruled in (1)(b) above;
 - (b) *Eretmoptera* Kellogg, 1900 (gender: feminine), type species *Eretmoptera browni* Kellogg, 1900, by original designation and monotypy;
 - (c) *Clunio* Haliday, 1855 (gender: masculine), type species *Clunio marinus* Haliday, 1855, by monotypy.
- (3) The name *oblidens* Walker, 1856, as published in the binomen *Chironomus oblidens* (specific name of the type species of *Orthocladius* van der Wulp, 1874 as ruled in (1)(b) above), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:
 - (a) ORTHOCLADIINAE Kieffer, 1911 (type genus *Orthocladius* van der Wulp, 1874), with the endorsement that it and other family-group names based on *Orthocladius* are to be given precedence over ERETMOPTERINAE Kellogg, 1900 and other family-group names based on *Eretmoptera* Kellogg, 1900,

and over CLUNIONINAE Kieffer, 1906 and other family-group names based on *Clunio* Haliday, 1855, whenever the respective type genera are placed in the same family-group taxon;

- (b) ERETMOPTERINAE Kellogg, 1900 (type genus *Eretmoptera* Kellogg, 1900), with the endorsement that it and other family-group names based on *Eretmoptera* are not to be given priority over ORTHOCLADIINAE Kieffer, 1911 and other family-group names based on *Orthocladius* van der Wulp, 1874 whenever their type genera are placed in the same family-group taxon;
- (c) CLUNIONINAE Kieffer, 1906 (type genus *Clunio* Haliday, 1855), with the endorsement that it and other family-group names based on *Clunio* are not to be given priority over ORTHOCLADIINAE Kieffer, 1911 and other family-group names based on *Orthocladius* van der Wulp, 1874 whenever their type genera are placed in the same family-group taxon.

History of Case 3355

An application to conserve the usage of the name ORTHOCLADIINAE Kieffer, 1911 for a well-known group of non-biting midges, and the usage of the name *Orthocladius* van der Wulp, 1874 by designation of *Chironomus oblidens* Walker, 1856 as the type species was received from Martin Spies (*Zoologische Staatssammlung München, Germany*) on 6 July 2005. After correspondence the case was published in BZN 64(1): 45–53 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. An amendment to the case from the author and an additional co-author, with supportive comment, was published in BZN 64(2): 124–125. An additional supportive comment was published in BZN 64(2): 125–126.

Decision of the Commission

On 1 January 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 50–51 and emendation 64: 125. At the close of the voting period on 1 March 2008 the votes were as follows:

Affirmative votes – 20: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Haliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Ng, Pape, Papp, Patterson, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No votes were received from Lim. Kerzhner, Minelli and Pyle were on leave of absence.

Grygier, voting for the proposals, commented that the family name and type species matters are independent of each other and should have been the subject of separate votes. Kullander, voting for the proposals, appealed for shorter, more concise applications.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Clunio Haliday, 1855, *Natural History Review*, 2: 62.

CLUNIONINAE Kieffer, 1906, *Genera Insectorum*, 42: 3.

Eretmoptera Kellogg, 1900, *Biological Bulletin*, **1**: 82.

ERETMOPTERINAE Kellogg, 1900, *Biological Bulletin*, **1**: 81.

oblidens, *Chironomus*, Walker, 1856, *Insecta britannica. Diptera*, vol. III, p. 180.

ORTHOCLADIINAE Kieffer, 1911, *Records of the Indian Museum*, **6**: 345.

Orthocladius van der Wulp, 1874, *Tijdschrift voor Entomologie*, **16**: 132.

OPINION 2207 (Case 3337)***Hydroporus discretus* Fairmaire & Brisout de Barneville, 1859
(Insecta, Coleoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Hydroporus discretus* Fairmaire & Brisout de Barneville, 1859 is conserved for a common species of water beetle by suppression of the senior synonym *Hydroporus neuter* Fairmaire & Laboulbène, 1855.

Keywords. Nomenclature; taxonomy; Coleoptera; DYTISCIDAE; *Hydroporus neuter*; *Hydroporus discretus*; diving beetle; Europe; Palaearctic.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) Opinion 2065 is rescinded;
 - (b) The name *neuter* Fairmaire & Laboulbène, 1855, as published in the binomen *Hydroporus neuter*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *discretus* Fairmaire & Brisout de Barneville, 1859, as published in the binomen *Hydroporus discretus*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The entry for *Hydroporus neuter* Fairmaire & Laboulbène, 1855 is deleted from the Official List of Specific Names in Zoology.
- (4) The name *neuter* Fairmaire & Laboulbène, 1855, as published in the binomen *Hydroporus neuter* and as suppressed in (1)(b) above, is placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3337

An application to conserve the usage of the specific name *Hydroporus discretus* Fairmaire & Brisout de Barneville, 1859 (Insecta, Coleoptera) was received from Manfred A. Jäch (*Naturhistorisches Museum Wien, Vienna, Austria*), Hans Fery (*Berlin, Germany*), A.N. Nilsson (*Umeå University, Sweden*), Pyotr N. Petrov (*Gymnasium 1543, Moscow, Russia*) and Ignacio Ribera (*Museo Nacional de Ciencias Naturales, Madrid, Spain*) on 11 November 2004. This species is a widely distributed diving beetle known from 40 countries from Ireland to China and is especially common in western, central and northern Europe. The application follows on a previous application, published as Case 3147 (BZN 58: 105–107), which unsuccessfully petitioned for conservation of this same name through suppression of its senior synonym *Hydroporus neuter* Fairmaire & Laboulbène, 1855. Opinion 2065 (BZN 61: 60) reported that the Commissioners thought that Case 3147 had not provided sufficient evidence to warrant suppression of a senior synonym. Case 3337 redressed this lack of appropriate references with a list of 521 publications in which *Hydroporus discretus* was treated as valid and a list of names of 109 water beetle experts from 28 countries who lent their support to this application. After correspondence the case

was published in BZN 64(2): 87–89 (June 2007). The title, abstract and keywords of the case were published on the Commission's website. Six supportive comments were published in BZN 64(2): 120–121.

Decision of the Commission

On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 88–89. At the close of the voting period on 1 June 2008 the votes were as follows:

Affirmative votes – 17: Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Kullander, Krell, Lamas, Mawatari, Pape, Papp, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No votes were received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Voting for the proposals, Halliday added that it should be noted that we do not approve of deliberate manipulation of usage as described in paragraph 5. Further, this manipulation of usage is unnecessary, since the listing of a name as a synonym in a catalogue does not constitute usage under Article 23.9.6. In omitting this synonym the author has needlessly damaged the taxonomic value of his work in order to achieve a nomenclatural objective. Bouchet, who had voted against in the first voting rounds and submitted a negative comment on Case 3147, wrote in response to Case 3337 that it was now overwhelmingly convincing. Kullander also said that support for this proposal was overwhelming.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

discretus, *Hydroporus*, Fairmaire & Brisout de Barneville 1859, *Annales de la Société Entomologique de France*, (3)7: 28.

neuter, *Hydroporus*, Fairmaire & Laboulbène, 1855, *Faune entomologique française ou description des insectes qui se trouvent en France, coléoptères*, vol. 1, p. 205.

OPINION 2208 (Case 3372)***Brachyplatystoma* Bleeker, 1862 (Osteichthyes, Siluriformes): precedence given over *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker, 1858**

Abstract. The Commission has ruled that the generic name *Brachyplatystoma* Bleeker, 1862 for a genus of South American freshwater catfishes is conserved by giving it precedence over two senior subjective synonyms, *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker, 1858.

Keywords. Nomenclature; taxonomy; Siluriformes; PIMELODIDAE; *Brachyplatystoma*; *Piramutana*; *Piratinga*; *Brachyplatystoma vaillantii*; *Piratinga reticulatus*; *Piramutana piramuta*; catfish; goliath catfishes; South America.

Ruling

- (1) Under the plenary power it is hereby ruled that the generic name *Brachyplatystoma* Bleeker, 1862 be given precedence over *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker, 1858 whenever it and either of these two names are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Brachyplatystoma* Bleeker, 1862 (gender: neuter), type species by original designation *Platystoma vaillantii* Valenciennes in Cuvier & Valenciennes, 1840, with the endorsement that it be given precedence over the names *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker, 1858 whenever it and either of these two names are considered to be synonyms;
 - (b) *Piratinga* Bleeker, 1858 (gender: feminine), type species by subsequent designation by Bleeker (1862) *Bagrus reticulatus* Kner, 1858, with the endorsement that it is not to be given priority over the name *Brachyplatystoma* Bleeker, 1862, whenever the two names are considered to be synonyms;
 - (c) *Piramutana* Bleeker, 1858 (gender: feminine), type species by monotypy *Bagrus piramuta* Kner, 1858, with the endorsement that it is not to be given priority over the name *Brachyplatystoma* Bleeker, 1862, whenever the two names are considered to be synonyms.
- (3) The following names are placed on the Official List of Specific Names in Zoology:
 - (a) *vaillantii* Valenciennes in Cuvier & Valenciennes, 1840, as published in the binomen *Platystoma vaillantii* (specific name of the type species of *Brachyplatystoma* Bleeker, 1862);
 - (b) *reticulatus* Kner, 1858, as published in the binomen *Bagrus reticulatus* (specific name of the type species of *Piratinga* Bleeker, 1858);
 - (c) *piramuta* Kner, 1858, as published in the binomen *Bagrus piramuta* (specific name of the type species of *Piramutana* Bleeker, 1858).

History of Case 3372

An application to conserve the usage of the name *Brachyplatystoma* Bleeker, 1862 for a genus of South American freshwater catfishes (family PIMELODIDAE) by giving it precedence over two senior subjective synonyms, *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker 1858 was received from Alberto Akama (*Museu de Zoologia da Universidade de São Paulo, Brazil*) and John G. Lundberg (*Academy of Natural Sciences, Philadelphia, PA, U.S.A.*) on 10 January 2005. After correspondence the case was published in BZN 64(1): 54–59 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 56. At the close of the voting period on 1 June 2008 the votes were as follows:

Affirmative votes – 15: Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Lamas, Mawatari, Papp, Rosenberg, Štys, van Tol and Zhang.

Negative votes – 2: Kullander, Pape.

No votes were received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Although voting for the proposals, Halliday commented that there were points in the presentation of the case that could have been improved. First, in the case it is stated that the name *Piramutana* was 'listed' in a series of modern works, but it is not clear if the authors intend to invoke Article 23.9.6 and refer to these as listings only and not true taxonomic usages. At least some of the works appear to be taxonomic research papers rather than catalogues. Secondly, Halliday suggested that the case would have been improved if the sentence referring 'to the Commission under Articles 23.9.3 and 81.2.3 of the Code' (end paragraph 9) had been omitted, as the Commission had been asked to reverse precedence under 23.9.3, not to suppress senior synonyms under 81.2.3. However, he added that, as neither of his objections has a material effect on the specific actions requested, they can be overlooked. Kottelat commented that his only reasons in voting for the proposals were the economic importance of the genus and the potential that a number of species are overfished and will need inclusion in Red Lists and other legal instruments (if not already done). Kullander, voting against the proposals, commented that apparently *Piratinga* has not been used after 1899 and would succumb to Article 23.9.1 if properly published, but then to priority of *Brachyplatystoma*. This would not help, because *Piramutana* is still the valid name and has been listed. He did not agree that *Brachyplatystoma* is well established in zoology, although it might possibly be established in neotropical ichthyology. Given the general instability of names of neotropical fishes, and the case that Zungaro recently replaced the 'well known' *Paulicea* for another of these large catfishes, Kullander said he can not support this case with the current explanation. However, if the authors could have shown any legal or other severe implications beyond those for catfish taxonomists, Kullander would have found it to be a stronger case.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Brachyplatystoma Bleeker, 1862, *Atlas ichthyologique des Indes Orientales Néerlandaises, publié sous les auspices du Gouvernement colonial néerlandais*. Tome II. Siluroïdes, Chacoïdes et Hétérobranchoïdes, p. 10.

piramuta, *Bagrus*, Kner, 1858, *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftlichen Classe*, **26**: 382.

Piramutana Bleeker, 1858, *Acta Societatis Scientiarum Indo-Neerlandicae*, **4**: 356, 357.

Piratinga Bleeker, 1858, *Acta Societatis Scientiarum Indo-Neerlandicae*, **4**: 355, 357.

reticulatus, *Bagrus*, Kner, 1858, *Ichthyologische Beiträge. II. Abtheilung. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftlichen Classe*, Wien, **26**: 376.

vaillantii, *Platystoma*, Valenciennes in Cuvier & Valenciennes, 1840, *Histoire naturelle des poissons. Tome quinzième. Suite du livre dix-septième. Siluroïdes*, p. 21.

OPINION 2209 (Case 3382)***Mystus* Scopoli, 1777 (Osteichthyes, Siluriformes): usage conserved by designation of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840 as the type species**

Abstract. The Commission has set aside all previous fixations of type species for the genus *Mystus* Scopoli, 1777, before that by Jordan & Everman (1917), thus conserving current usage of the names *Mystus* Scopoli, 1777 and *Polydorus* Bleeker, 1862 for two genera of bagrid and doradid catfishes.

Keywords. Nomenclature; taxonomy; BAGRIDAE; DORADIDAE; *Mystus*; *Platydoras*; *Mystus halepensis*; *Mystus pelusius*; *Platydorus costatus*; catfishes.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Mystus* Scopoli, 1777, before the designation by Jordan & Evermann (1917) of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840, are set aside.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Mystus* Scopoli, 1777 (gender: masculine), type species *Bagrus halepensis* Valenciennes, in Cuvier & Valenciennes, 1840 by subsequent designation by Jordan & Evermann, 1917, as ruled in (1) above;
 - (b) *Platydoras* Bleeker, 1862 (gender: masculine), type species *Silurus costatus* Linnaeus, 1758 by original designation.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *pelusius* Solander in Russell, 1794, as published in the binomen *Silurus pelusius* (the valid name of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840, the type species of *Mystus* Scopoli, 1777);
 - (b) *costatus* Linnaeus, 1758, as published in the binomen *Silurus costatus* (specific name of the type species of *Platydoras* Bleeker, 1862).

History of Case 3382

An application to conserve the usage of the generic names *Mystus* Scopoli, 1777 and *Platydoras* Bleeker, 1862 for two genera of bagrid and doradid catfishes was received from Maurice Kottelat (*Cornol, Switzerland*) and Heok Hee Ng (*Museum of Zoology, University of Michigan, Ann Arbor, MI, U.S.A.*) on 1 June 2006. After correspondence the case was published in BZN 64(2): 100–102 (June 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 101. At the close of the voting period on 1 June 2008 the votes were as follows:

Affirmative votes – 17: Bogutskaya, Bouchet, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Mawatari, Pape, Papp, Rosenberg, Štys, van Tol and Zhang.

Negative votes – none.

No votes were received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

costatus, *Silurus*, Linnaeus, 1758, *Systema Naturae*, p. 306.

Mystus Scopoli, 1777, *Introductio ad historiam naturalem, sistens genera lapidum, plantarum et animalium hactenus detecta, characteribus essentialibus donata, in tribus divisa, subinde ad leges naturae*, p. 451.

pelusius, *Silurus*, Solander in Russell, 1794, *Natural History of Aleppo. Containing a Description of the City, and the Principal Natural Productions in its Neighbourhood. Together with an Account of the Climate, Inhabitants, and Diseases; Particularly of the Plague. Second Edition, revised by P. Russell*, vol. 2, p. 210.

Platydoras Bleeker, 1862, *Atlas ichthyologique des Indes Orientales Néêrlandaises, publié sous les auspices du Gouvernement colonial néêrlandais*. Tome II. Siluroïdes, Chacoïdes et Hétérobranchoïdes, p. 5.

The following is the reference for the designation of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes 1840 as the type species of the nominal genus *Mystus* Scopoli, 1777:

Jordan, D.S. & Evermann, B.W. 1917. *Leland Stanford Junior University Publications, University Series*, 27: 17.

OPINION 2210 (Case 3365)***Atractus* Wagler, 1828 and *Atractus trilineatus* Wagler, 1828
(Reptilia, Serpentes): conserved**

Abstract. The Commission has conserved the generic name *Atractus* Wagler, 1828 for a group of common Neotropical snakes by suppressing its senior objective synonym *Brachyura* Kuhl & van Hasselt, 1822. In addition, the name *Atractus trilineatus* Wagler, 1828, the specific name of the type species of *Atractus*, has been given precedence over its senior objective synonym *Brachyorrhos kuhli* Schlegel, 1826.

Keywords. Nomenclature; taxonomy; Serpentes; COLUBRIDAE; *Atractus*; *Brachyura*; *Atractus trilineatus*; *Brachyorrhos kuhli*; Neotropical snakes.

Ruling

- (1) Under the plenary power it is hereby ruled that the following names are suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Brachyura* Kuhl & van Hasselt, 1822;
 - (b) *kuhli* Schlegel, 1826, as published in the binomen *Brachyorrhos kuhli* (senior objective synonym of *Atractus trilineatus*).
- (2) The name *Atractus* Wagler, 1828 (gender: masculine), type species by monotypy *A. trilineatus* Wagler, 1828, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *trilineatus* Wagler, 1828, as published in the binomen *Atractus trilineatus* is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Brachyura* Kuhl & van Hasselt, 1822, as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.
- (5) The name *kuhli* Schlegel, 1826, as published in the binomen *Brachyorrhos kuhli* (senior objective synonym of *Atractus trilineatus*) and as suppressed in (1)(b) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3365

An application to conserve the usage of the generic name *Atractus* Wagler, 1828 was received from Marinus S. Hoogmoed (*Museu Paraense Emilio Goeldi, Belem, PA, Brazil*) and Jay M. Savage (*San Diego State University, CA, U.S.A.*) on 25 October 2005. After correspondence the case was published in BZN 64(1): 60–63 (March 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 64: 62. At the close of the voting period on 1 June 2008 the votes were as follows:

Affirmative votes – 12: Bogutskaya, Brothers, Fautin, Grygier, Halliday, Krell, Mawatari, Papp, Rosenberg, Štys, van Tol and Zhang.

Bouchet voted for proposals (2) and (4).

Negative votes – 4: Kottelat, Kullander, Lamas and Pape.

Bouchet voted against proposals (1), (3) and (5).

No votes were received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Bouchet (voting split) commented that the application documents that *Atractus* Wagler, 1828 qualifies as a nomen protectum, and *Brachyura* Kuhl & van Hasselt, 1822 qualifies as a nomen oblitum. His split vote for (2) and (4) reflects this obligatory reversal of precedence under Article 23.9. Conversely, he voted against the reversal of precedence for the species level names because their usage does not satisfy Article 23.9 and priority should apply. Similarly, voting against the proposals, both Kullander and Lamas commented that *Atractus* is already to be conserved as a nomen protectum under 23.9.2, thus does not need Commission intervention. Kullander further said that with regard to preference for *trilineatus* over *kuhli*, he preferred to stay with priority because it has not been demonstrated that this would cause major havoc for tropical snake systematics.

Both Lamas (voting against the proposals) and Rosenberg (voting for the proposals) noted that that *Atractus* and *Brachyura* are subjective, not objective, synonyms (the type species of each is not based on the same type specimen(s), therefore *Atractus bilineatus* is also not an objective synonym of *Coluber brachyurus*, only a junior subjective synonym).

Brothers, Krell, Pape and Papp (all voting for the proposals) pointed out that the author of *Brachyorrhos kuhli* was Schlegel, not Boie in Schlegel.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Atractus Wagler, 1828, *Isis von Oken*, **21**(7): column 741 on p. 60.

Brachyura Kuhl & van Hasselt, 1822, *Algemeene Konst- en Letterbode*, **1**(7): 101.

kuhli, *Brachyorrhos*, Schlegel, 1826, *Bulletin des Sciences Naturelles et de Géologie* (Paris), **9**(2): 236.

trilineatus, *Atractus*, Wagler, 1828, *Isis von Oken*, **21**(7): column 742.

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THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 65, part 4 (pp. 241–344)

20 December 2008

Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

Guidelines for Case preparation and Instructions for authors are available on <http://www.iczn.org>

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 65, part 3, 30 September 2008) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3476: *Dialictus* Robertson, 1902 and *Evylaeus* Robertson, 1902 (Insecta, Hymenoptera): proposed precedence over *Hemihalictus* Cockerell, 1897, *Sudila* Cameron, 1898 and *Sphecodogastra*, Ashmead, 1899. J. Gibbs, J.S. Ascher & L. Packer.

CASE 3477: *Nesocyrtosoma* Marcuzzi, 1976 (Insecta, Coleoptera): proposed conservation of usage by designation of *Cyrtosoma inflatum* Marcuzzi, 1976 as the type species. K.J. Höpp, M.A. Ivie, P. Bouchard, W.E. Steiner Jr. & R.L. Aalbu.

CASE 3478: *Rhynchotherium tlascae* Osborn, 1918: proposed designation of a neotype. S.G. Lucas.

CASE 3479: *Cuvieronius* Osborn, 1923: proposed designation of a type species and a neotype. S.G. Lucas.

CASE 3480: *Haplomastodon* Hofstetter, 1950: proposed designation of a type species and a neotype. S.G. Lucas.

CASE 3481: *Crioceris quadripunctata* Olivier, 1808 (currently *Petauristes quadripunctatus*; Insecta, Coleoptera): proposed conservation. H. Silfverberg.

CASE 3482: *Psittacus tenuirostris* Kuhl, 1820 and *Licmetis pastinator* Gould, 1841 (Aves, Psittaciformes): proposed conservation of usage by designating a neotype. R. Schodde, C. Voisin & J.-F. Voisin.

Publication of Case titles in taxonomic serials: An invitation to editors of journals, newsletters and newsgroups

Rulings from the *International Commission on Zoological Nomenclature* can significantly alter the vocabulary of taxonomy and thus are of interest to a wide range of biologists.

The *Bulletin of Zoological Nomenclature* (BZN) publishes applications for the *Commission* to set aside the provisions of the *Code of Zoological Nomenclature* in circumstances where their strict observance would cause instability or confusion. Publication of an application in the form of a *Case* is an invitation for any person to contribute comments, which may also be published. We would like to promote visibility of Cases and encourage maximum input from the user community. If your journal would like to be kept informed about applications to the Commission and is willing to draw your readers' attention to relevant Cases please let us know (iczn@nhm.ac.uk), and we will send you an e-listing of titles of applications published in the BZN quarterly.

Corrigendum

Case 3458, published in BZN 65(3): 188–193, contained a typographical error in the orthography of the name d'Abrera (incorrectly written as D'Abrera), an author of several referenced works and taxa in the Case. The correct name of the publishing house for d'Abrera's works is Hill House Publishers (Melbourne & London), and not Hill House Publications, Melbourne. The Secretariat regrets any inconvenience caused.

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

Financial Report for the year 2007

The main work of the Commission during the year was on applications from zoologists in 24 countries to resolve problems of zoological nomenclature. These were published in the *Bulletin of Zoological Nomenclature*, together with Opinions (rulings) made by the Commission on other cases. Further applications were under consideration. Advice was given by the Commission's Secretariat in response to a large number of enquiries on matters of nomenclature from zoologists worldwide.

Total income received by the Trust consisted of £30,700 for all publications produced by the Commission, £45,354 from Appeal and general donations, £9,975 in bank interest and investment income, £11,494 capital gain on the sale of investments, and £225 in lecture Fees, bringing the total income for the year to £97,748.

Expenditure in 2007 was £100,721 on salaries and fees of the Secretariat of the Commission, £5,173 on Appeal expenditure including travel, £8,914 for printing the *Bulletin of Zoological Nomenclature* and for the distribution of all publications, and £2,617 for office expenses and depreciation of office equipment, bringing the total expenditure to £117,425.

The Secretariat of the Commission was again housed in the Natural History Museum, London, whom we thank for their continuing support. The Trust wishes to express its thanks to all the donors listed below who have contributed to the continuation of its work during the year for the international zoological and palaeontological community.

Donations were received from:

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INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED
31 DECEMBER 2007

Income

SALE OF PUBLICATIONS

Bulletin of Zoological Nomenclature	£27,537
International Code of Zoological Nomenclature	2,858
Official Lists and Indexes	255
Centenary History	50

 30,700

GRANTS AND DONATIONS

45,354

INTEREST RECEIVED

933

INVESTMENT INCOME

9,042

CAPITAL GAIN ON SALE OF INVESTMENTS

11,494

LECTURE FEES

225

 97,748

Expenditure

SALARIES, NATIONAL INSURANCE AND FEES

100,721

OFFICE EXPENSES

1,921

PRINTING OF BULLETIN AND DISTRIBUTION OF
PUBLICATIONS

8,914

APPEAL EXPENDITURE INCLUDING TRAVEL

5,173

DEPRECIATION OF OFFICE EQUIPMENT

696

 117,425

DEFICIT FOR THE YEAR CARRIED TO BALANCE SHEET

£19,677

***Systema Naturae* 250, Museum National d'Histoire Naturelle, Paris, France, 26–27 August 2008**

Andrew Polaszek

*Department of Entomology, Natural History Museum, London, U.K.
(former Executive Secretary, ICZN)*

This year, 2008, marks 250 years of zoological nomenclature, begun by Linnaeus with the publication of the 10th edition of *Systema Naturae* in 1758. To celebrate this anniversary, zoologists from around the world met in Paris for a two-day symposium as part of the 20th International Congress of Zoology. The purpose of the meeting was to address the history and development of zoological nomenclature and animal taxonomy, and to discuss the future of these disciplines in the light of emerging technologies that support biodiversity informatics.

A particular highlight of the meeting was the presentation of the Sherborn Award, for services to biodiversity informatics, to former ICZN President Prof. Alessandro Minelli of the University of Padua. The award takes its name from Charles Davies Sherborn, author of *Index Animalium*, the monumental catalogue of animal names from 1758 to 1850. The award itself, in this first year of its presentation, took the form of a silver sculpture of the fish *Howella sherborni* (Norman) described by Sherborn's biographer J.R. Norman. The sculpture was made by the eminent sculptress Juliet Simpson, and presented to Prof. Minelli by Prof. E.O. Wilson of Harvard University.

The programme for the symposium contained a mix of historical accounts of animal nomenclature and taxonomy, moving on to the current issues in animal systematics, and focussing in particular on electronic publication of species descriptions and nomenclatural acts. Another highlight of the symposium was the presence of Linnaeus himself, played by Hans Odöo, who gave an excellent account of himself, reminding us all of his exceptional talents.

The programme for the two-day meeting (presented by first author unless indicated by *) was as follows:

The Linnaean Ark – 250 years of animal names

Presentation of Sherborn award for services to biodiversity informatics (by E.O. Wilson)

Edward O. Wilson: The Linnaean Ark

David Quammen: Linnaeus – name giver. A passion for order (paper presented by Andrew Polaszek)

James Dobreff: Daniel Rolander's *Diarium Surinamicum* and its insects

Hans Dieter Sues: Fossils and Linnaean classification

Gordon McGregor Reid: The naming of threatened animal and plant species – a matter of life and death

Quentin D. Wheeler: Linnaean classifications: from Ark to Battlestar

Current issues in animal nomenclature

Philippe Bouchet: Documenting marine megabiodiversity

- Estelle Balian, Hendrik Segers, Christian Lévêque & Koen Martens*: Freshwater Animal Diversity Assessment – a project documenting biodiversity in continental aquatic ecosystems
- Neal Evenhuis, Thomas Pape*, Adrian Pont, & Chris Thompson: Flying after Linnaeus: Dipteran names since *Systema Naturae* (1758)
- Frank Bisby: The Catalogue of Life – an e-Science *Systema Naturae* for the future
- Donat Agosti, Terry Catapano, Norman F. Johnson, Richard Pyle & Zhi-Qiang Zhang: 1758, Latin Binomen – 2008, e-Descriptions
- Sandra Knapp & Debbie Wright: e-Publish or Perish
- David Schindel & Scott Miller: Provisional nomenclature: The on-ramp to taxonomic names
- David Patterson: Future taxonomy – bigger, better and faster
- Simon Tillier: DNA barcoding as a tool to grasp the taxonomic diversity of life
- James Hanken: The Encyclopedia of Life
- Norman Johnson: Future taxonomy today: new tools applied to accelerate the taxonomic process
- David Remsen: The All-Genera Index
- Ellinor Michel & Andrew Polaszek: Linnaeus – Sherborn – ZooBank
- Richard L. Pyle, Miguel Alonso-Zarazaga, Nina Bogutskaya, Philippe Bouchet, Denis Brothers, Daphne G. Fautin, Mark J. Grygier, R. Bruce Halliday, Izya M. Kerzhner, Maurice Kottelat, Frank-Thorsten Krell, Sven O. Kullander, Gerardo Lamas, Susan Lim, Shunsuke F. Mawatari, Alessandro Minelli, Peter K.L. Ng, Thomas Pape, László Papp, David J. Patterson, Gary Rosenberg, Pavel Štys, Jan van Tol & Zhi-Qiang Zhang. ZooBank: reviewing the first two years, and preparing for the next 250
- Charles Godfray: Web taxonomy – the future or a distraction?
- Alfried Vogler: 250 years: enough animal nomenclature
- Benoit Dayrat: The Codes – is reconciliation possible?
- Fredrik Ronquist: 250 years of Swedish taxonomy

Without the support of the sponsors listed below, *Systema Naturae* 250 could not have happened. We are grateful to: the Natural History Museum, London; Global Biodiversity Information Facility; Encyclopedia of Life; Syngenta Bioline; Linnean Society of London; Taylor and Francis Group; Elsevier; Chester Zoo; Syncroscopy.

The proceedings of *Systema Naturae* 250 will be published as a commemorative volume: '*Systema Naturae* 250 – the Linnaean Ark' in 2009 by CRC Press.



Presentation of the Sherborn Award for services to biodiversity informatics to Prof. Alessandro Minelli (left), by Prof. Edward O. Wilson (far right), overseen by Linnaeus (centre, embodied by Hans Odöo) at the *Systema Naturae* 250 Symposium, 20th International Congress of Zoology (photo credit: the Earl of Cranbrook).

International Commission on Zoological Nomenclature Special Session of the Commission – Paris, France

Saturday 23–Monday 25 August 2008

Commissioners present:

Denis Brothers – President, Miguel Alonso-Zarazaga, Nina Bogutskaya, Philippe Bouchet, Daphne Fautin, Maurice Kottelat, Frank Krell, Sven Kullander, Susan Lim, Richard Pyle, Gary Rosenberg, Jan van Tol and Zhi-Qiang Zhang.

Apologies had been received from Mark Grygier, Bruce Halliday, Gerardo Lamas, Peter Ng, Thomas Pape, László Papp, David Patterson and Pavel Štys.

ICZN Secretariat participants:

Ellinor Michel and Natalie Dale-Skey.

Outside participants and observers:

Donat Agosti, *Plazi* (Sunday & Monday), Edward Dickinson, *Howard & Moore Checklist of Birds* (Monday), Catriona MacCallum, *PLoS Biology* (Sunday &



ICZN Special Session, Paris, 23–25 August 2008 – Commissioners and Secretariat at work. Clockwise from top left: Denis Brothers (President), Gary Rosenberg, Miguel Alonso-Zarazaga, Richard Pyle, Philippe Bouchet, Daphne Fautin, Susan Lim, Frank Krell, Natalie Dale-Skey, Ellinor Michel, Maurice Kottelat, Nina Bogutskaya, Zhi-Qiang Zhang, Jan van Tol, Sven Kullander (photo credits: Miguel Alonso-Zarazaga and Michael Schmitt).

Monday a.m.), David Remsen, *GBIF* (Monday), Nigel Robinson, *Zoological Record* (Monday p.m.), Michael Schmitt, *Koenig Museum Bonn* (Sunday & Monday), F. Christian Thompson, *USDA & Smithsonian* (Monday), Jonathan Todd, *Natural History Museum London* (Saturday to Monday).

The meeting was divided into five sessions on (1) Commission Business, (2) BZN Content and Future, (3) Amendments to the current Code and plans for revision of the Code, (4) Electronic Publication and (5) ZooBank. Brief reports on each session follow this summary of decisions and committees. Transcripts of all sessions were written by Dale-Skey and Michel.

SUMMARY OF DECISIONS AND COMMITTEES ICZN SPECIAL SESSION

1. Editorial Committee

(established as 'ICZN 5th Code Committee' during the ICZN general session held in Washington in 2007 (BZN 64(3): 140–142)):

- The core membership of the 5th Code Committee agreed upon in Washington (i.e. Alonso-Zarazaga, Alberto Ballerio, Bouchet, Brothers, Fautin, Kottelat, Krell, Lamas, Pape, Andrew Polaszek, Pyle, Rosenberg and Chris Thompson) was amended to add Bogutskaya, Michel, and Svetlana Nikolaeva. After the Paris meeting Polaszek requested to be removed from the Committee. The final composition of the Committee was delegated by Brothers to Rosenberg.
- Rosenberg was appointed Chair.
- The brief of the Committee was extended to include not only production of a draft 5th Code but also consideration of the possibility of proposing amendments before the 5th Edition comes into force. As such, the name was changed from 5th Code Committee to Editorial Committee.
- The following votes (i to viii) were taken in relation to the remit of the Committee:

Structure of the 5th Code:

- (i) The Committee is authorised to have freedom of total restructuring in producing a draft 5th edition of the Code. (For: unanimous)

Items expressly referred to the Editorial Committee for consideration for the 5th Code:

- (ii) Proposal of correction of Art. 24.1 with deletion of Art. 55.5. (For: 12; Against: 1; Abstain: 0)
- (iii) Issues with types that have been released into the wild or are otherwise not available for study. (For: unanimous)
- (iv) Conflicts between French and English editions; request for ruling on definition of 'description'. (For: unanimous)
- (v) Revision of Art. 13.1.1 to eliminate or replace 'purported'. (For: unanimous)

Methods of publication:

The following decisions were made to clarify the course of the Committee in preparing an Amendment regarding methods of publication:

- (vi) Physical works that are not paper-based (e.g. CD-ROMs, DVDs) should be disallowed. (For: 10; Against: 0; Abstain: 2)

- (vii) Electronic-only publications should be allowed, if mechanisms can be found that give reasonable assurance of the long-term accessibility of the information they contain. (For: 10; Against: 0; Abstain: 2)
- (viii) Some method of registration should be part of the mechanism of allowing electronic publication of names and nomenclatural acts. (For: 8; Against: 2; Abstain: 2)

N.B.: one Commissioner was absent during votes vi to viii

1.1 4th Code Revision Subcommittee:

- A 4th Code Revision Subcommittee was established to ensure that, should preparation of the 5th Code be prolonged, some issues could be dealt with through declarations and amendments as appropriate.
- The following Commissioners and non-ICZN nominees agreed to serve on the Subcommittee: Bouchet, Dickinson, Kottelat, and Michel.
- The brief of the Subcommittee is to work on declarations and amendments dealing with all issues except ZooBank and e-publication (e.g. article 24.1, language, etc.).

1.2 Constitution and Bylaws Subcommittee:

- A Subcommittee to deal with revision of the Constitution and Bylaws was established.
- The following Commissioners and Secretariat nominees agreed to serve on the Subcommittee: Alonso-Zarazaga, Brothers, Dale-Skey, Grygier, Kottelat, Michel, and Rosenberg.
- Kottelat was appointed Chair.
- The brief of the Subcommittee is to draft, circulate and initiate changes in Bylaws, and make an outline of areas of focus for revision of the Constitution. A deadline for listing changes to be made to the Bylaws was set for the end of 2008.

2. ZooBank Committee

(established during the ICZN general session held in Washington in 2007 (BZN 64(3): 140–142)):

- The core membership agreed upon in Washington (i.e. Agosti, Alonso-Zarazaga, Fautin, Krell, Kullander, Lim, Pape, Patterson, Polaszek, Pyle, Remsen, Rosenberg, van Tol and Zhang) was amended to add Bogutskaya, Brothers, Dickinson, Halliday, Yde de Jong, Kottelat, Chris Lyal, Michel, and Schmitt, and remove Simon Coppard. Other members are currently under consideration.
- Krell was appointed Chair.
- The brief of the Committee is to consider all substantive decisions on registry and implementation of ZooBank, including prospective and retrospective content of ZooBank, source, and mechanism.

3. ZooBank and Registration

- The Commission voted to confirm that it wished to pursue the exploration of ZooBank and potential registration, and that these items were referred to the ZooBank and Editorial Committees. (For: 11; Against: 0; Abstain: 2)

Summary of session on Commission Business (Session 1)

Chair: D. Brothers; Rapporteurs: M. Kottelat & E. Michel

Election of new President, Vice President & Councillors

Following Bylaw 11(b), the Commissioners appointed two members (Krell and Kottelat) to work with the Council as the nominating committee for the election of the new President and Vice-President. The nominating committee met twice and contacted the four nominees to seek their agreement to be candidates. The date of the elections for President and Vice-President was set as 1 December 2008 and start of their term of office 1 January 2009. No date for election of Councillors was set because there was no vacancy.

Election of new Commissioners

There are currently 22 Commissioners after the recent resignation of Commissioner Mawatari and deaths earlier in the year of Commissioners Kerzhner and Song. The Commission had agreed in the Washington General Session that the total number of Commissioners should be 28, thus there are six vacancies.

The Commission reviewed supporting material for 20 nominees, considering their qualifications and the Commission's needs in fields of taxonomic specialty, geographic location, particular skills and scientific social context. It was agreed that the Council will nominate 12 candidates for the election ballot from among the 20 nominees. The procedure mandated under the current bylaws presents some complications in election protocol (e.g. see below), which were discussed without finalisation. It may be necessary to revise the relevant bylaws before being able to hold a valid election, thus the date for the election was not set.

Revision of Constitution and Bylaws

Over the years, a number of problems with the Constitution and even more so with the Bylaws have been identified. Examples include 1) procedures for elections date back to a time when most elections were held during congresses, thus valid nomination and election protocol is dependent on congress attendance and schedules; 2) Commissioners' service times are calculated based on classes and particular meetings, which are very difficult to track, rather than absolute time served; 3) voting periods are long, which was justified when communication was by post, but are no longer needed with today's technologies; 4) procedures for handling cases are in some situations unnecessarily complicated and increase processing time; and 5) the absence of a dedicated discussion period before voting makes discussion of cases too unstructured.

The revision of the Bylaws is entirely under the control of the Commission and does not need IUBS ratification; this allows the Commission to move swiftly. By contrast, modifications of the Constitution must be approved by the IUBS Section on Zoological Nomenclature and IUBS itself. A subcommittee (membership as indicated in Summary of Decisions & Committees) was established to work on revision of the Bylaws, aiming at proposing changes by 31 December 2008. The Subcommittee will also work on revision of the Constitution in due course.

Funding model for ITZN/ICZN

The present financial situation is worrying as the ITZN capital is very limited and based on shares, thus currently decreasing in value. If ITZN funds are exhausted, the

BZN could not be published and the Secretariat would be dismantled, which would almost certainly halt the work of the Commission. Development of ZooBank requires additional external support. There was discussion on various proposals from Michael Dixon, the new Chairman of the ITZN, for new funding models, including a subscription model (for short-term support) and an endowment model (for long-term support). This was followed up at a meeting between Dixon and the Council after the ICZN Special Session.

Relationship with IUBS

The relationship with IUBS was not discussed in detail, but the Council was requested to explore this issue with IUBS in the light of perceived difficulties with requirements to meet in concert and to ratify ICZN changes through the IUBS. Commissioner Fautin is a member of IUBS and will facilitate this discussion.

Summary of session on BZN Content & Future (Session 2)

Chair: J. van Tol; Rapporteur: E. Michel

Secretariat functioning

The Secretariat staff were introduced, as there have been significant changes since the Washington DC ICZN General Session: Svetlana Nikolaeva (BZN Scientific Editor) continues to handle cases and now runs journal production, taking over from Jeremy Smith who retired in April; Steven Tracey (Secretariat Administrator and BZN Zoologist) handles BZN Comments, set pieces (e.g. contents, indexes) and Enquiries, in addition to keeping the finances, subscriptions and office admin rolling along; Natalie Dale-Skey (Webmaster, Development Officer and BZN Zoologist) runs regular Commission and author communication, keeps the website updated, assists with processes related to fundraising as well as contributing to BZN editorial and production processes; Ellinor Michel (Executive Secretary) took over from Andrew Polaszek in January, and ensures that the Secretariat runs smoothly, has productive collaborations with external scientific bodies, raises funds and awareness of ICZN activities.

Enquiries will continue to be screened by the Secretariat, with the help of David Notton, a seconded curator from NHM Entomology with extensive expertise in nomenclature. More straightforward questions will be dealt with directly and difficult questions will be sent to members of the Commission. A list of FAQs is being developed based on enquiries and will be posted on the website. Ultimately, a Wiki will be set up to deal with Enquiries.

A list of Commissioners' specialities (e.g. bibliographic, classical languages, etc.) was considered desirable to improve workflow, and will be polled from the Commission.

BZN topics

The core and potential future functions of the BZN were explored. The main content is to remain issues of nomenclature, including Cases, Comments, Opinions, general articles on nomenclatural topics and not bibliographic issues. The Commissioners are to be considered a board of associate editors. Whether additional, highly qualified associate editors should be included will be considered at a subsequent meeting.

The possibility of merging the numbering system for Cases and Opinions was considered, however it was argued that Opinions need to keep a strictly sequential order of timing of decisions, given by the numbering system. Similarly, Cases need to have a chronological ordering from receipt date, indicated by their numbers. As the time for complete treatment of a Case can vary enormously depending on editorial responsiveness of the authors, time needed for Comments and number of voting rounds, these numbering systems will remain unchanged. The format for Opinions will also remain unchanged, but the topic may be revisited in future sessions, as it has been suggested that the presentation could be made less formal. A new format for voting papers was suggested by Dale-Skey, and agreed by all present. This will put all votes on one standardised page, although the presentation of supporting material on case votes will remain essentially the same. A procedure for case closures was agreed. If authors have not responded on editorial suggestions after one year, a case is to be considered closed. Closed cases, which include orphaned, withdrawn or rejected applications, will be listed yearly in the December BZN.

The potential for the new application Proforma (application instructions with examples <http://www.iczn.org/guidelines.html>) to improve the quality of submissions was recognised, however it is too soon to judge the effects of this on recent applications received.

Active engagement with taxonomic serials should be re-initiated so that Case titles are published where they are most likely to be seen by working taxonomists. Commissioners will help develop these links, presenting the Secretariat lists of appropriate journals and newsletters in their area of taxonomic expertise.

An ISI rating for the BZN was discussed, but seems an inappropriate measure for a journal of this kind (with supporting comments from external participants in the publishing business). Online publication for the full journal was considered a desirable option, but with paper copy as well. Concerns over revenue from the BZN were mentioned in the context of changing publication options.

Outreach

As a point of general strategy, the Commission discussed the position of nomenclatural work in science and defining who is the public being served (the stakeholders for ICZN work). It was agreed that we need to address various gaps in outreach, both in method and geography. The starting question of whether the number of taxonomic papers is increasing or decreasing was hotly debated, with data from *Scopus* (which generally covers mainstream online accessible publications) suggesting sharply increasing output, but more detailed tracking of marine literature, including low-profile publications, suggesting decreasing output. Zootaxa has had an enormous impact on the field, and has had unprecedented growth in publication output since its inception. This important topic warrants further attention.

It is critical that good nomenclatural practice is encouraged with both ‘carrots and sticks’ (incentives and enforcements) for databasing initiatives. It was suggested that taxonomic referencing be increased throughout biological sciences, so that taxonomic authorship papers are included as standard in other literature. This would have an important effect in improving the profile of taxonomy, especially in view of ‘bean counting’ administrations.

Teaching of nomenclature is, as has been noted for some time, decreasing in prevalence. This needs to be addressed. The suggestion was made that the ICZN

make a series of notes at different levels (e.g. slides, text, etc.) available for teachers to make it easy for them to include nomenclature in their classes.

Geographic representation both on the Commission and of nomenclatural teaching was considered a very pressing issue. The four top countries with high output of taxonomic work, high biodiversity, yet still low representation in the nomenclatural community were identified as China, Mexico, Argentina and Brazil. Other megabiodiverse countries, e.g. in SE Asia, are also important for nomenclatural outreach. Outreach can be effected by 1) increased teaching of nomenclature, which can be aided by ICZN-prepared teaching material; 2) increased ICZN profile in taxonomic journals, which can be aided by listing BZN Cases; 3) improved visibility of nomenclature in professional presentation – Commissioners encouraged to speak on this in Congresses, seminars, etc; and 4) representation on the Commission.

Summary of session on Amendments to the current Code, plans for revision of the Code (Session 3)

Chair: Z.-Q. Zhang; Rapporteur: G. Rosenberg

Amendments versus Revision

The publication of the 4th Edition of the Code in 1999 met the changing needs of zoological taxonomy at the time and corrected problems in the previous edition of the Code. The need for similar changes is becoming increasingly pressing, and is a high priority issue for the Commission. During this session the Editorial Committee (renamed and expanded from the 5th Code Committee established in Washington D.C., with membership as indicated in Summary of Decisions & Committees) agreed to pursue dual objectives of revising the existing Code through declarations and amendments and producing the 5th Edition of the Code. An extensive discussion addressed the question of which kinds of changes could be considered minor changes to the Code, thus treatable with a declaration, versus major changes which require an amendment. Although this was not solved in a general sense, specific examples were pursued. The most pressing amendment was addressed in a dedicated session on electronic publication (see following summary), with a draft proposal now published in a number of outlets (this issue of *BZN*, *Zootaxa*, *Zoological Journal of the Linnean Society*, etc.) and the time-clock started for comments before voting. Other proposed changes to the 4th Edition of the Code were referred to the Editorial Committee as indicated in Summary of Decisions & Committees.

Objectives for the 5th Code

The Commissioners favoured attempting a complete restructuring of the Code to make it more accessible and usable. This might take several forms, for example grouping together all rules that apply to a particular kind of name (species-group, genus-group, family-group), or having one section with rules for introducing new names and another for rules governing names previously introduced. Addition of more examples and explanatory material is also desirable.

Logistics of producing the 5th Code

The Commission discussed the need to find funding for the Editorial Committee to meet to work on the 5th Edition of the Code. This would allow work to proceed more

rapidly than can be accomplished by email. The e-Biosphere meeting in London in June 2009 may provide a good opportunity for that meeting, and also to refine the proposed amendment for electronic publication in light of comments received to that point. A wiki has also been established for discussion of revisions of the Code. As occurred in Washington in 2007, a consensus was reached that English should be the only official language of the 5th Edition. Given this consensus, a proposal that amendments to the Code be translated into all the official languages of the Code was tabled.

Summary of session on Electronic Publication (Session 4)

Chair: F. Krell; Rapporteur: S. Kullander

Binominal nomenclature and binary publication – the issue at hand

A full session with attendance from Commissioners and a number of expert external participants gave attention to what is called e-only publication, i.e. publications that exist only as computer files and which are served by electronic signals only, without organised production of hard copies during the publication process. It is presently possible to publish nomenclatural acts in electronic publications such as CD-ROMs following the requirements in Article 8.6. It is not possible to publish nomenclaturally available work in electronically streamed publications, such as via the hypertext transfer protocol, the most common form for streaming documents on the Internet. Nomenclatural acts published on the Internet alone are currently unavailable for zoological nomenclature unless the publication reflects the content of a simultaneously published, identical paper version.

The growth of Internet publishing today, however, is almost exponential, making it an increasingly prominent form of publishing scientific journals. Until recently, Internet publishing has usually been combined with identical paper publication because of variation in the user base for one format or the other. However, the internet is increasingly accessible and many publishers are now moving away from paper publication entirely, and do not have other simultaneous distribution methods, such as CD-ROMs. Thus, there is a current crisis as nomenclatural acts contained in e-only publications are (often inadvertently) nomenclaturally unavailable.

A large number of arguments have been produced for and against e-only publication. The scientific community has already had a positive experience with information dissemination using electronic publications. But warnings have been issued that e-only publications (usually stored on only one server and served on demand through an HTTP connection) may not be permanent. The content could be revised over time, which for nomenclature is a serious breach, and moreover servers could be shut down, violating the requirement for permanent archiving.

During this session, special emphasis was given to dates of publication, but also to the problem of verifiability of a publication. The discussion centred on journal publication, which will soon need guidelines because most e-only publication is expected to be with journals, and the number of e-only journals is expected to increase. The Secretariat has been receiving an increasing number of enquiries on this topic from publishers, authors and taxonomists wishing to determine nomenclatural availability in electronic publications. A special problem already exists in that dual publishing (online and on paper) is currently relatively common, but it is not always

possible to verify that an online paper also exists in an identical paper form. The pre-release of papers is also considered a challenge to rules of nomenclatural availability, as it is common for pre-released papers to be altered in their final form.

Pre-publication appearance of papers online, e.g., papers in proof, 'early online', or the like, was considered a problematic complication in e-publishing. It certainly requires a hard stamped date on e-only publications, and some mechanism has to be found so that if pre-publication papers do not get formally published, such cases can be dealt with.

Outlining the issues

Since e-only publications are already happening, the Commission feels that it has to meet the challenge and provide means to adopt e-only as a publication method also for names and nomenclatural acts.

A number of suggestions to regulate e-only publishing were proposed but not adopted, including restriction to certain approved publishers, registration with the Secretariat, or application of ISSNs or other identifiers. It was clearly noted that the Secretariat cannot act as a depository for voucher copies. There are 16,000–24,000 new animal names and nomenclatural acts published each year, and although currently only a tiny fraction of these are published without paper copies, this portion is likely to grow significantly, thus archiving those publications would swamp the Secretariat.

ZooBank was seen as a future resource which would enable official registration as a means of verification of new names and nomenclatural acts not printed on paper. The mechanism for using ZooBank, however, is still in a development phase and will require time for adoption by the zoological community, thus interim regulations must be considered.

Archiving

A major point of concern was durability, and availability of online publications over time. Although it was noted that paper publications do not necessarily exist forever, print on paper is the best option. For digital content, one may consider paper archiving, but this then is not truly e-only, and the logistical questions of how and where remain daunting. Digital archiving is still an industry in development with multiple techniques for archiving and ensuring future access to content. Most archiving systems may not be expected to be able to deliver future copies that are exactly identical to the original in layout, but the information can be carried over by different means.

Online journals do make use of archival systems, and the Commissioners agreed that digital archives provide an acceptable means of ensuring future access to e-only publications. It is also advisable to use a standard format, of which the archival version of the Portable Document Format (PDF/A) provides an ISO standard for PDF files, saving all layout and reading instructions together with the document.

Hard Media

Opinions varied concerning laser disks, including CD-ROM, DVD-ROM and Blue Ray, but the final conclusion was that these storage units are unlikely to provide permanent access to their contents, and production of a print run of numerous identical copies was not guaranteed. It was thus decided to not permit CD-ROM or similar storage media for publication of nomenclatural acts in the future. It was the

experience of several Commissioners and commentators that libraries are reluctant to deal with occasional CD-ROMs sent to them.

Current strategies

Concern about technology pervaded the discussion. On a suggestion by Commissioner Kottelat, it was thought ill advised to specify in too much detail which methods would be permitted. Instead, it was suggested that the methods should be specified in Declarations to be issued by the Commission whenever needed.

Three decisions were agreed upon, presented in a draft amendment to the Code in this volume that could be ratified by the next meeting of the Commission in October 2009 in Cape Town. It was the general opinion that this issue is of sufficient urgency that it should be addressed immediately, as the next edition of the Code will take several more years. If passed, this emendation will make it possible to publish e-only nomenclatural acts from 2010, and will keep zoological nomenclature in pace with the development of scientific publishing as it moves away from paper and other hard media.

Summary of session on ZooBank (Session 5)

Chair: D. Fautin; Rapporteur: R. Pyle

A day-long session was devoted to the topic of ZooBank, the proposed official online registry of nomenclatural acts, publications, authors, and type specimens. This included presentations on the history of the project, summaries of major issues still to be addressed and potential solutions. Discussion was extensive and included a vote on the ZooBank Committee.

Brief Historical Review

Since the initial 2005 publication in *Nature* announcing the intention of the ICZN to develop and implement the ZooBank registry (Polaszek et al., 2005), progress on ZooBank has continued in several ways. At the request of the ICZN Executive Secretary, Pyle began developing an initial prototype implementation of ZooBank, initially hosted online at Bishop Museum in Honolulu. With financial support from the Global Biodiversity Information Facility (GBIF) and the Taxonomic Databases Working Group (TDWG), the technical infrastructure to support the issuing and resolution of Life Science Identifiers (LSIDs) was completed in July 2007. These identifiers have been adopted by GBIF/TDWG as the recommended standard for Globally Unique Identifiers (GUIDs) for biodiversity-related data objects.

The public launch of ZooBank occurred at midnight, GMT, on 1 January 2008, in part to commemorate the 250th anniversary of the officially recognised starting date for modern zoological nomenclature (1 January 1758; Article 3). At that time, ZooBank had registered all 4,819 names established in the tenth edition of Linnaeus's *Systema Naturae* as retrospectively registered content, as well as five new species names and associated acts, literature, authors and type specimens as prospectively registered content.

In April 2008, GBIF provided additional funds to support ZooBank to retrospectively register all authors, publications, and nomenclatural acts establishing new taxon names in the journal *Zootaxa* (an effort that is ongoing). Additional

prospective registration had also occurred (and was in process) for several publications in *Zootaxa*, *PLoS One* and *ZooKeys*. The development and implementation process had revealed a need for several technical implementations that would need input from the ICZN, so further development was paused until the Paris Special Session of the ICZN to allow this discussion to occur.

Prospective Registration

The presentation continued with a discussion by Pyle on various aspects of prospective registration, starting with the specific data ‘objects’ that should get registered in ZooBank. Most people have thought of it as a registry for ‘names’, but the correct unit of registration is the ‘nomenclatural act’ (which includes acts establishing new names, but also other acts governed by the Code, such as lectotypifications, emendations, etc.). One area of uncertainty was whether additional acts that are not themselves governed by the Code but have potential bearing on Code-governed acts should be included: these comprise subsequent binomial and trinomial combinations (which may establish secondary homonymy), certain orthographic variations of spelling, and nomenclatural acts associated with names established at ranks above the family-group.

The second class of data object to be included in the ZooBank registry is published works, as defined by the Code. Although publication objects are properly the domain of the library community, the decision to include registration for published works within ZooBank was based on two factors. First, even though some initiatives (such as the Biodiversity Heritage Library and Plazi) are concerned more specifically with publications, no large-scale project currently fulfils all of the needs of ZooBank (e.g. precision tracking of dates of publication, and authorship of specific subunits of individual publication units); and second, there is a perceived desire for ZooBank to remain fully autonomous with regard to the objects of direct concern to it. Hence, because the Code does robustly address publications, it seems justifiable for ZooBank to include registration of publications that contain nomenclatural acts. The scope of which published works should be registered was established to be only those published works that contain registered nomenclatural acts.

The third class of data object to be included in the ZooBank registry is authors. Though not strictly governed by the Code, authors are a fundamental component of zoological nomenclature. Also within the scope of registration in ZooBank are contributors of ZooBank registry content, among whom most will probably be authors as well, but in some cases may not be.

The fourth class of data object to be included in the ZooBank registry is type specimens. Clearly, the name-bearing type specimens would appropriately be included in ZooBank, even though they are most properly within the domain of the natural history collections that own and manage them. There may also be a need to register the collections themselves as ZooBank data objects, as the Code does address these.

In addition to defining the data objects to be included in the ZooBank registry, there is the question of who is authorised to add and edit content in ZooBank. A balance must be struck between liberal accessibility and safeguarding ZooBank content from malicious and/or sloppy editorial contributions. This issue is complex, and has not been fully resolved. An initial model for creating a list of users authorised to add new prospective registration content is to start with known zoological

taxonomists (e.g. lists of authors of zoological journals), then establish a protocol whereby an existing authorised user has the authority to establish anyone else as an authorised user. A model for authorisation to edit existing content requires more careful thought.

The process by which registration occurs, such as the aesthetic ‘look and feel’ of the registration website, and the sequence of entering content remain open to further discussion. Another area in need of discussion is the steps necessary to transform the unverified content that enters the database into a fully verified ‘gold-star’ registration entry.

Retrospective Registration

The task of capturing historical nomenclatural acts and associated published works, authors, and type specimens requires far more effort than establishing an online mechanism for submitting prospective registration content. Michel presented a summary of the issues related to retrospective registration, outlining the magnitude of the task, and providing some historical examples of estimates for the amount of time required. Retrospective content was deemed to be important for ZooBank because it provides significant value to practising taxonomists. It was also deemed to be complicated in terms of establishing mechanisms to assure accuracy. A number of ideas and options were discussed by the Commission, and there was general agreement that more discussion is needed both within the ICZN and with the broader community.

Observer Agosti of Plazi presented the case for including original taxonomic descriptions in ZooBank, which would enhance the value of ZooBank to practising taxonomists. Copyright issues have always been an obstacle, but there are some interpretations that taxonomic descriptions, when stripped of originally published formatting and layout, constitute ‘facts’, and hence are not subject to copyright in some countries. Much depends on whether taxonomic treatments can be considered creative works. The questions relating to copyright laws as they apply to taxonomic works, and also whether taxonomic descriptions are appropriate to be included as ZooBank content, will require further investigation and discussion.

Observer Remsen of GBIF presented an overview of the needs of the broader community for online services for resolving taxonomic names. The problem spans all Codes of nomenclature, and involves text-strings used as scientific names that are not immediately recognisable (due to misspellings, cross-Code and within-Code homonymy, etc.). ZooBank could act as steward for the coordination of zoological names among all components of the ‘Global Names Architecture’ (GNA). Inconsistencies between the Codes of nomenclature introduce difficulties for cross-Code reconciliation and resolution.

Observer Robinson of Thompson/Reuters (owners of Zoological Record; ZR), presented a proposal to establish ‘Registration Centres’ for ZooBank, to allow broader community involvement in adding content to ZooBank. ZR could (and would be willing to) serve as such a centre. Protocols and guidelines would need to be established to assure data quality, and online data services would need to be defined and developed. ZR would benefit from contributing in this way by having links back to the ZR website from ZooBank records entered through the ZR registration centre. ZR has strict protocols for data accuracy, and an experienced staff of data entry personnel. Further investigation of this model is needed.

ZooBank Committee

At the meeting of the International Union of Biological Sciences (IUBS) in 2007, a meeting of Commissioners voted unanimously to pursue ZooBank as an activity of the ICZN, and an initial ZooBank Committee was established with an explicit statement that Commissioners and outside observers not present at the meeting would be allowed to join the Committee subsequently. However, the vote was never formalised, and thus needed to be formalised in this session. The ZooBank Committee established at the 2007 IUBS meeting was amended as indicated in Summary of Decisions & Committees. The Commission then voted to pursue the exploration of ZooBank and potential registration, and refer these items to the Editorial and ZooBank Committees.

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Allotypes should be from the type series: a position paper for reinstating Recommendation 72A from the third edition of the Code that defines the term ‘allotype’

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Abstract. The purpose of this paper is to suggest reinstating the wording of the third edition of the Code for Recommendation 72A: ‘The term ‘allotype’ may be used to

designate among paratypes a specimen of opposite sex to the holotype. Authors are recommended to avoid using the term 'allotype' for specimens other than paratypes.' The Glossary in the next edition of the Code should change accordingly. This is to assure that allotypes always have unequivocal status as paratypes and, thus, are covered by Recommendation 75A as potential reserve name-bearers. Only type specimens should bear the root '-type'.

Introduction

Non-name-bearing specimens of the original type series are often considered nomenclaturally irrelevant (e.g. Simpson, 1960; Blackwelder, 1967; Fricke, 1985), being merely of taxonomic interest indicating the species concept of the original author. However, the Code recommends considering paratypes or paralectotypes as the first choice if a neotype needs to be designated (Recommendation 75A). They are potential or reserve name-bearers (Smith, 1983) in case the original name-bearers are lost or destroyed. As such, they are potentially relevant for nomenclatural purposes. Although Recommendation 75A recognises this potential relevance of paratypes, the current Code is unclear about the status of allotypes, a frequently used term in taxonomic literature in groups with sexual dimorphism. It is defined in Recommendation 72A: 'The term "allotype" may be used to indicate a specimen of opposite sex to the holotype'. This wording allows designation of allotypes subsequently to the original description and even from non-type material. According to the Glossary of the Code, the term allotype is not regulated by the Code, but Recommendation 72A is dedicated purely to allotypes and defines this term. Since allotype is a widely used term and covered by a Recommendation of the Code, its ambiguous definition and unclear status is undesirable. Defining allotype as a paratype of a different sex from the holotype would clarify its status as a paratype and, thus, as reserve name-bearer covered by Recommendation 75A.

History

As originally proposed by Muttkowski (1910, p. 10) and occasionally adopted by others (e.g. Fernald, 1939; Viette, 1951; Gloyd, 1982; ICZN, 1999), an 'allotype' was considered to be the first specimen of the opposite sex from the holotype and was conceived as a useful tool for documenting sexual dimorphism. Banks & Caudell (1912) seem to be the first to have limited the use of the term 'allotype' as a paratype of the opposite sex from the holotype, thus from the original type series. This usage was promulgated by Durrant et al. (1921), Frizzell (1933), Mayr et al. (1953), Torre-Bueno (1962), Blackwelder (1967), ICZN (1985), and has been generally widely accepted amongst taxonomists (Smith, 1984).

However, several authors, recognising the value of limiting the application of the term 'allotype' to a member of the original type series, have introduced new terms for specimens of the opposite sex designated or described after the original description: 'neallotype' (Talbot, 1921), 'metallotype' (Munro, 1957; Smith, 1983), 'neoallotype' (Séguy, 1967). Dechambre (2001), in an attempt to avoid using the inappropriate root 'type' for non-type material, proposed the term 'alloréférent'. As is often the case for many new words coined for a special scientific use, none of these new terms have

gained broad acceptance. Additionally, they are nomenclaturally irrelevant and misleading, since they do not refer to type material.

The term allotype is not mentioned in the 1964 second edition of Code (ICZN, 1964). The 1985 third edition of the Code recommends (Rec. 72A) that 'The term 'allotype' may be used to designate among paratypes a specimen of the opposite sex to the holotype', and that 'Authors are recommended to avoid using the term 'allotype' for specimens other than paratypes'. The 1999 fourth edition of the Code simply recommends (Rec. 72A) that the term 'allotype' may be used to indicate a specimen of opposite sex of the holotype. An important difference between the 1985 and 1999 Codes is that the term allotype is a paratype in the third edition and simply a specimen of the opposite sex (with no type status) in the fourth edition.

By explicitly allowing the use of such a broadly defined 'allotype', it is possible for an author to designate, after the original description of the taxon in question, an allotype (or as called by some, a neoallotype) for the first representative of the opposite sex from the holotype. Examples of these are DeLong (1953) and DeLong & Martinson (1973) who described allotypes for previously described species of cicadellid leafhoppers; Brookhart & Muma (1981) who designated three 'allotypes' for previously described species of solifugids; Maes (1990) who designated six 'allotypes' for previously described species of stag beetles (Coleoptera: LUCANIDAE); Soula (1999, 2002) who designated 33 'neoallotypes' in the genus *Macraspis* MacLeay, 1819 and 46 'neoallotypes' in other genera of RUTELINAE (Coleoptera: SCARABAEIDAE); Alexis and Delpont (2001a, 2001b) who designated various 'neoallotypes' for species of CETONIINAE (Coleoptera: SCARABAEIDAE); Sanborn & Phillips (2004) who designated an 'allotype' to accompany a neotype of a cicada; and Özdikmen et al. (2007) who designated an 'allotype' for a leaf beetle (Coleoptera: CHRYSOMELIDAE) more than 30 years after its original description. Also, the term 'alloréfèrent' was used by Alexis & Delpont (2002) for a female paratype of a *new species* of cetoniine scarab they described and by Soula (2006) for previously described species of ruteline scarab beetles. Thus, the term 'alloréfèrent', even when used, is not being applied consistently. None of these authors violated the Code, because the term 'allotype' was not regulated by Articles of the Code but only by a Recommendation. Maes (1990) and Soula (1999) did not follow Recommendation 72A in force at the time. Clearly, this broad array of designations is inconsistent and confusing.

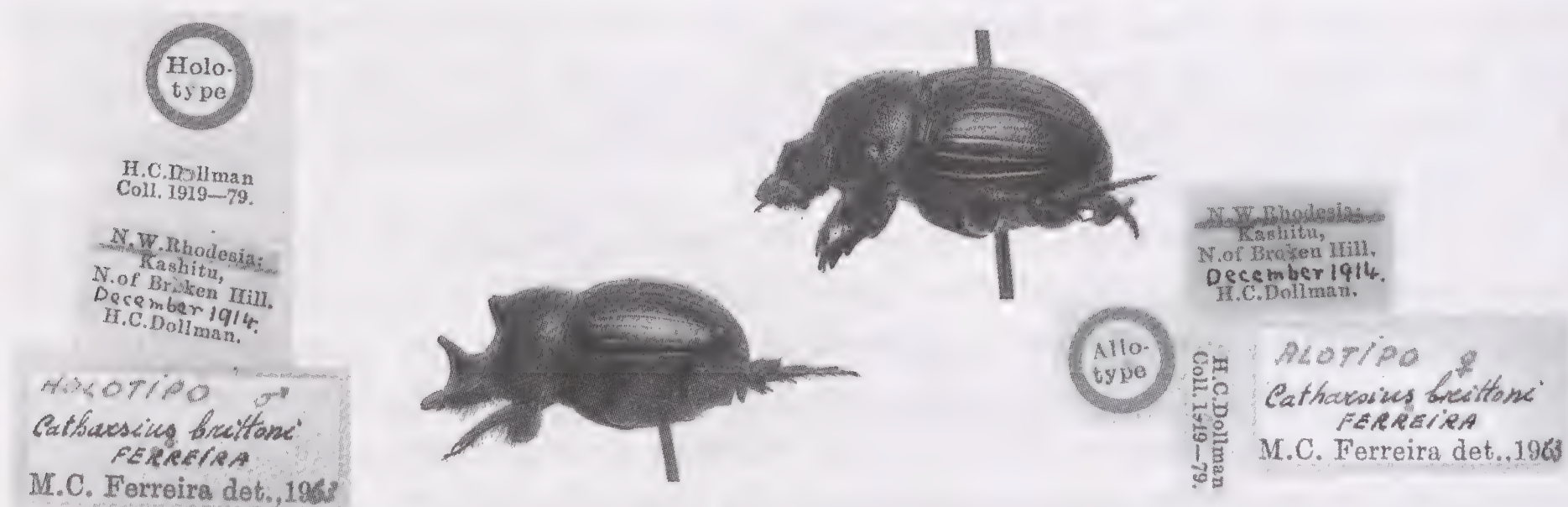


Fig. 1. The holotype and allotype of a sexually dimorphic dung beetle species, with labels.

Proposal

In order to promote stability and consistency in the use of terms containing the root 'type' for types, we suggest that the Commission consider for the fifth edition of the Code restricting the application of the widely used term 'allotype' to a specimen taken from the original type series and to return to the language of the third edition of the Code, to wit Recommendation 72A: 'The term 'allotype' may be used to designate among paratypes a specimen of the opposite sex to the holotype. Authors are recommended to avoid using the term 'allotype' for specimens other than paratypes.' The definition of allotype in the Glossary of the Code should be changed to: 'A term for a designated specimen amongst the paratypes of the opposite sex to the holotype [Recommendation 72A].' We further suggest that the terms 'neoallotype', 'neallotype' and 'metallotype' (or any other similarly intended word employing the root '-type') not be used, since they denote a non-type specimen. Authors interested in keeping a record of important specimens subsequent to the type series, such as the first member of the opposite sex, are encouraged to deposit them, as 'vouchers', in well-curated, accessible collections as defined in Recommendation 72F.

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Proposed amendment of Articles 8, 9, 10, 21 and 78 of the *International Code of Zoological Nomenclature* to expand and refine methods of publication

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Abstract. Electronic publishing is often suggested as a way to accelerate progress in taxonomy. The *International Code of Zoological Nomenclature*, however, does not recognise electronic publication of new scientific names and nomenclatural acts. Advances in publishing technology, such as print-on-demand and distribution of PDFs of articles instead of traditional reprints, make it increasingly difficult to tell if works are properly published. At the same time, advances in archiving technology make it feasible to consider allowing electronic publication under the *Code*. The International Commission on Zoological Nomenclature therefore proposes to amend the *Code* to expand and refine methods of publication. If accepted by the zoological community, the proposed multi-part amendment would establish an *Official Register of Zoological Nomenclature* (ZooBank) and allow electronic publication after 2009 subject to certain conditions. To be available, new scientific names published in electronic works would need to be registered and the works in which they appeared deposited in appropriate electronic archives. The amendment would also disallow publication on CD-ROM or DVD, leaving printing on paper as the only allowable method for producing physical copies after 2009.

Keywords. Amendment; archiving; electronic publication; International Code of Zoological Nomenclature; Official Register of Zoological Nomenclature; ZooBank.

For 250 years, taxonomists have relied on having access to physical copies of published works in order to verify information about taxa. The difficulty of tracking down publications can be a substantial impediment to taxonomic work, which has led some researchers to advocate modifying the codes of nomenclature, for plants and bacteria as well as for animals, to allow electronic publication of scientific names (Knapp et al., 2007; Wheeler & Krell, 2007).

Electronic publishing and access to online information can clearly accelerate progress in taxonomy (Wheeler, 2008). Even when the fourth edition of the *International Code of Zoological Nomenclature* (ICZN, 1999) was published, it was clear that electronic publication could not be ignored (Ride, 1999, 2003). In all fields of science, however, long-term access to digital information has been and remains a significant concern (Anonymous, 2001; Howe et al., 2008; Szalay, 2008). Botanists have rejected proposals for electronic publication because of concerns for archiving and security from tampering (Zander, 2004; McNeill, 2006). Although some works printed on paper are rare, the number of instances in which no copies are known to survive is vanishingly small, so it certainly has been possible to reliably archive paper copies. Will we be able to say the same for electronic works 100 years from now? Can we have both rapid and effectively permanent access to publications and the information they contain?

The International Commission on Zoological Nomenclature (ICZN) considered these issues at a special session in Paris, August 23–25, 2008, preceding the XXth International Congress of Zoology (ICZ). The Commissioners voted to start the process required to amend the *International Code of Zoological Nomenclature* to allow electronic publication of new scientific names and other nomenclatural acts. A summary of the draft amendment was presented at the ICZ on August 27, during the *Systema Naturae* 250 symposium. The draft amendment was then refined via e-mail discussion among Commissioners during the following month.

In Paris, Commissioners voted separately in favour of three principles relating to publication. None of these passed unanimously, but all had at least a two-thirds majority among the twelve voting.

- Electronic-only publications should be allowed, if mechanisms can be found that give reasonable assurance of the long-term accessibility of the information they contain.
- Some method of registration should be part of the mechanism of allowing electronic publication of names and nomenclatural acts.
- Physical works that are not paper-based (e.g. CD-ROMs, DVDs) should be disallowed.

One development favourable to the acceptance of electronic publication is the emergence of mature platforms for archiving electronic documents, such as Portico, which offers a permanent archive for electronic journals, and LOCKSS (Lots of Copies Keep Stuff Safe), an international, communal initiative based at Stanford University Libraries (Maniatis et al., 2005; Fenton, 2006). These systems comply with the ISO standard for an Open Archive Information System (OAIS) and seek to assure the long-term retrievability of archived electronic publications, even when the publisher no longer supports distribution. The ICZN does not advocate these over other such archives, but sees them as examples of archiving technology that may prove acceptable to the zoological community.

The International Commission on Zoological Nomenclature therefore proposes the following amendment of the fourth edition of the *International Code of Zoological Nomenclature* (hereafter ‘the *Code*’), to allow electronic publishing coupled with archiving of works and registration of new scientific names. In addition to electronic publication, the proposal perforce addresses methods of publication in general. It is followed by an explanation of the procedure for amendment and adoption, and discussion of the reasoning behind the proposal. Comments from the community of zoologists are sought, whether to oppose, support, or suggest improvements and alternatives for the various parts of this proposal.

PROPOSED AMENDMENT

In the proposed amendment, normal font represents existing text of the *Code*. Text in *italics* is new text; titles that otherwise would be in italics are shown in small uppercase letters. Text in square brackets [] describes the changes proposed in a given section. The amendment affects Articles 8, 9, 10, 21, and 78, and the Glossary.

Article 8. What constitutes published work. A work is to be regarded as published for the purposes of zoological nomenclature if it complies with the requirements of this Article and is not excluded by the provisions of Article 9.

[Article 8.1 is revised to add electronic publication separately from methods that produce physical copies.]

8.1. **Criteria to be met.** A work must satisfy the following criteria:

- 8.1.1. it must be issued for the purpose of providing a public and permanent scientific record,
- 8.1.2. it must be obtainable, when first issued, free of charge or by purchase, and
- 8.1.3. it must have been produced in an edition containing simultaneously obtainable copies by a method that assures
 - 8.1.3.1. numerous identical and durable copies (*see Article 8.4*), or
 - 8.1.3.2. widely accessible electronic copies with fixed content and format (*e.g. PDF/A, ISO Standard 19005–1:2005*) (*see Article 8.5*).

[Articles 8.2 and 8.3 are unchanged. Article 8.4 is reformulated as the proposed 9.2, Article 8.5 is deleted, and Article 8.6 is simplified and merged under the proposed Article 8.4.]

8.4. ***Works issued as physical copies.*** *Works issued as physical copies are subject to the following criteria:*

- 8.4.1. ***Works printed on paper.*** *After 2009, the only acceptable means of producing physical copies is by printing on paper using ink or toner.*
- 8.4.2. ***Works on CD-ROM or DVD.*** *To be considered published, a work on CD-ROM or DVD*
 - 8.4.2.1. *must have been issued after 1999 and before 2010, and*
 - 8.4.2.2. *must contain a statement naming at least 5 major publicly accessible libraries in which copies of the CD-ROM or DVD were to have been deposited.*

[A new Article 8.5 is added to address electronic works and add a requirement that they be archived.]

8.5. ***Works issued and distributed electronically.*** *To be considered published, a work issued and distributed electronically must*

- 8.5.1. *have been issued after 2009,*
- 8.5.2. *state the date of publication in the work itself, and*
- 8.5.3. *be archived with an organization other than the publisher in a manner compliant with ISO standard 14721:2003 for an Open Archive Information System (OAIS), or the successors to that standard. (For documentation of the location of the archive, see Article 10.9.2.1.)*
 - 8.5.3.1. *The archiving organization's website must provide a means to determine which works are contained in the archive.*
 - 8.5.3.2. *The archiving organization must have permanent or irrevocable license to make the work accessible should the publisher no longer do so.*
 - 8.5.3.3. *If it is found that the work was not deposited in an archive within one year after the work's stated date of publication, or that after the publisher or its successor no longer supports distribution of a work it cannot be recovered from an archive, the case must be referred to the Commission for a ruling on the availability of any names and nomenclatural acts contained in the work.*

[A new Article 8.6 is added to allow the Commission to respond to changes in technology without need for amending the *Code*.]

8.6. *New methods of publication and archiving.* *The Commission may issue Declarations to clarify whether new or unconventional methods of production, distribution, formatting, or archiving can produce works that are published in the meaning of the Code.*

[Article 8.7 is unchanged. Recommendation 8A is changed to accommodate electronic publishing; 8B, 8C, and 8D are added; and the current 8C through 8E are changed to 8E to 8G, with the latter two otherwise unchanged and so not shown here.]

Recommendation 8A. Wide dissemination. Authors have a responsibility to ensure that new scientific names, nomenclatural acts, and information likely to affect nomenclature are made widely known. *Authors can accomplish this by publishing in appropriate scientific journals or well-known monographic series, by entering new names and nomenclatural acts into the OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE (ZooBANK), and by sending copies of their works to the ZOOLOGICAL RECORD.*

Recommendation 8B. Minimum edition of printed works. *A work on paper should be issued in a minimum edition of 25 copies, printed before any are distributed.*

Recommendation 8C. Electronic works. *Ideally names and nomenclatural acts published in electronic works should also be published simultaneously on paper. Electronic works should be structured to allow automated indexing and data extraction.*

Recommendation 8D. Content immutable. *The content of a work is immutable once it is published. Publishers should not allow any changes to a work after its publication, even to correct typographical errors. Such changes automatically create a new work in the sense of the Code. Corrections should instead be made through notices of errata or other separate publications. This is particularly true for electronic works and works produced by print-on-demand. Second or other additional printings of a work should be clearly labeled as such, with date of publication stated in the work, whether or not any changes have been introduced.*

Recommendation 8E. Public accessibility of published works. Copies of published works that contain new scientific names or nomenclatural acts, or information likely to affect nomenclature, should be permanently conserved in or by libraries that make their holdings publicly accessible.

[Article 9 is revised to add more details about what does not constitute published work.]

Article 9. What does not constitute published work. Notwithstanding the provisions of Article 8, none of the following constitutes published work within the meaning of the Code:

- 9.1. after 1930, handwriting reproduced in facsimile by any process;
- 9.2. after 1985, works produced by hectographing or mimeographing;
- 9.3. before 2000 and after 2009, works issued on laser disks such as CD-ROM and DVD;
- 9.4. photographs as such;
- 9.5. proof sheets;
- 9.6. microfilms;

- 9.7. acoustic records made by any method;
- 9.8. labels of specimens;
- 9.9. copies obtained on demand of an unpublished work [Art. 8], even if previously deposited in a library or other archive;
- 9.10. *materials issued primarily to participants at meetings (e.g. symposia, colloquia, congresses, or workshops), including abstracts and texts of presentations or posters;*
- 9.11. text or illustrations distributed by means of electronic signals (e.g. via the Internet), except those fulfilling the requirements of Articles 8.1 and 8.5.

Recommendation 9A. Authors to avoid unintentional publication in abstracts.

Authors *should not include* names and acts affecting zoological nomenclature in abstracts of papers or posters to be presented at meetings. (For disclaimer of abstracts volumes, see Recommendation 8G.)

[Under Article 10 (provisions conferring availability), proposed Articles 10.8 and 10.9 are added for names and nomenclatural acts published before and after 2009, with requirement of registration for the latter if published electronically.]

- 10.8. **Availability of names and nomenclatural acts in electronic works.** *New names and nomenclatural acts cannot be made available in electronic works issued before 2010 (Article 8.5.1; see Article 10.9 for other requirements).*
 - 10.8.1. *Where stability of nomenclature would be promoted thereby, a name or nomenclatural act appearing in such a work may be referred to the Commission for a ruling under the plenary power on its availability, if the work otherwise fulfils the requirements of Article 8.5.*
- 10.9. **Registration of names and nomenclatural acts.** *Registration in the OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE (Article 78.2.4) is required for a new scientific name published in an electronic work (Article 8.5) to be available. Additional requirements for availability of such names are:*
 - 10.9.1. *the registration number assigned in the OFFICIAL REGISTER must be cited in the work itself, and*
 - 10.9.2. *at least the following information must be recorded in the OFFICIAL REGISTER:*
 - 10.9.2.1. *for the name of a taxon at any rank, sufficient bibliographic information to identify the work in which the name is proposed, and the name and Internet address of the archiving organization, and*
 - 10.9.2.2. *for a species-group name, the depository for the name-bearing type and the location of that depository;*
 - 10.9.2.3. *for a genus-group name, the type species;*
 - 10.9.2.4. *for a family-group name, the type genus.*
 - 10.9.3. *Registration of nomenclatural acts other than the proposal of new names in an electronic work is voluntary.*
 - 10.9.4. *Names and nomenclatural acts published on paper may be registered voluntarily and retrospectively; such registration does not affect their availability.*
 - 10.9.5. *Registration without publication in conformity with Articles 8 and 9 does not confer availability.*

Recommendation 10B. Registration encouraged. *Authors are encouraged to include registration numbers from the OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE for new names and nomenclatural acts that they introduce in paper-based publications, particularly if there is also an electronic edition.*

[Under Article 21 (determination of date), 21.8 is revised to address advance electronic access to publications, and proposed Article 21.9 is added for works issued both on paper and electronically.]

21.8. ***Advance distribution of separates and preprints.*** *Advance distribution of separates or preprints affects date of publication as specified by the following criteria:*

21.8.1. Before 2000, an author who distributed separates in advance of the specified date of publication of the work in which the material was published thereby advanced the date of publication.

21.8.2. The advance issue of separates after 1999 does not *advance the date of publication*, whereas preprints *on paper*, unambiguously imprinted with their own date of publication, are published works from the date of their issue, *if they fulfil the criteria for publication in Article 8 and are not excluded by Article 9* (see Glossary: ‘separate’, ‘preprint’).

21.8.3. *Some works are accessible online in preliminary versions before their final publication date. Advance electronic access does not advance the date of publication of a work.*

21.9. ***Works issued on paper and electronically.*** *A name or nomenclatural act published in a work issued in both print and electronic editions is available from the one that first fulfils the relevant criteria of availability.*

[Under Article 78 (powers and duties of the Commission), proposed Article 78.2.4 is added to allow establishment of the *Official Register*.]

78.2.4. *The Commission may establish and maintain an OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE, to record essential information about names and nomenclatural acts. The OFFICIAL REGISTER may be maintained in electronic or paper form. The OFFICIAL LISTS and OFFICIAL INDEXES may be maintained in the OFFICIAL REGISTER.*

[The following terms are proposed for addition to the Glossary.]

archive, *n.* *A depository for works (q.v.); v. to place a work in an archive with the intent that it be permanently preserved there.*

OFFICIAL REGISTER, *n.* *An abbreviated title for the OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE, maintained by the Commission to record information about names and nomenclatural acts (see Article 78.2.4).*

publication, electronic, *n.* *A publication issued and distributed by means of electronic signals.*

register, *v.* *To enter into the OFFICIAL REGISTER information about a name, author, nomenclatural act, work, or other item tracked for purposes of zoological nomenclature.*

registration number, *n.* *A unique identifying number or alpha-numeric code assigned in the OFFICIAL REGISTER to a particular item.*

ZOOBANK, *n.* *The online version of the OFFICIAL REGISTER OF ZOOLOGICAL NOMENCLATURE.*

PROCEDURE FOR AMENDMENT

The Constitution of the ICZN (Article 12.2) requires publication of notice of a proposed amendment of the *Code* in the *Bulletin of Zoological Nomenclature* (*BZN*), and submission of notice to at least three other journals, at least twelve months prior to the Commissioners' voting on the proposed amendment. The Constitution (Article 16.1.2) also requires a one-year period of comment from the zoological community. The one-year period for comment started on October 17, 2008, with publication of notice in *Zootaxa* (International Commission on Zoological Nomenclature, 2008). The one-year period prior to voting will begin with publication in the issue of *BZN* for December, 2008.

The Commission will revise the amendment in light of comments received from zoologists (Constitution Article 16.1.4). Particular areas for discussion are highlighted below, but the Commission seeks comments on all aspects of the proposed amendment. Some comments will be published in *BZN* or posted on the ICZN website (www.iczn.org). Revised text of the amendment will also be posted there, and in the ICZNwiki (iczn.ansp.org).

Formal comments should be sent to Dr Ellinor Michel, Executive Secretary of the ICZN (iczn@nhm.ac.uk) or to Dr Gary Rosenberg, chair of the ICZN Editorial Committee (rosenberg@ansp.org). Zoologists may also contact Commissioners directly for informal discussions; Commissioners are listed on the inside front cover of this issue and contact information is available from <http://www.iczn.org/Commissioners.htm>.

Assuming that sufficient consensus is reached in the zoological community, the revised amendment will be presented at the International Union of Biological Sciences (IUBS) meeting in Cape Town, South Africa, in November, 2009 for provisional ratification under Constitution Article 16.1.5.1. Final adoption would then be by a vote of the Commissioners.

DISCUSSION

Although this proposal affects several Articles of the *Code*, it is presented as a single amendment. If presented as multiple amendments, each would be subject to separate vote, but the intention is to present an integrated package addressing issues of methods of publication.

In formulating the amendment, Commissioners have been concerned with issues of verifiability and encouragement of best practices. With printed publications it generally has been possible to verify from the work itself whether the names and nomenclatural acts it contains are available (leaving aside the problem of doctoral theses). With the advent of electronic publication, this distinction has been blurred. It is not unusual today to receive a PDF of an article without knowing if the journal in which it appeared was printed on paper or issued only electronically. This leaves the user unable to judge availability.

Registration of names is one means of addressing this issue, although it introduces dependency on an outside agency, as does the requirement for archiving of works. To obviate the need to check both the *Official Register* and an archive to determine whether a name is available, the proposed amendment requires that the location of the future archive for a work be stated when the name is registered, and that the registration number be given in the original publication. This should allow the user to determine from the work itself that a name fulfils these requirements. Further

considerations on archiving, registration, and other aspects of the proposed amendment are presented below in order of the number of the proposed article.

Formats for electronic publication (proposed 8.1.3.2)

It is difficult to specify which formats can be accepted for electronic publication. E-journals that have a fixed and final published form clearly are appropriate outlets for publishing nomenclatural works, whereas continuously modifiable forms such as online databases and interactive keys are not. In specifying 'fixed content and format', the intention is that the same text and illustrations should appear with the same pagination and proportions whenever a copy of the work is viewed, recognising that different software will not render a page identically on different computers. Also, external links are excluded under 'fixed content'; linked material such as 3-D tomographic images or videos of behaviour would not be considered part of a publication. Information necessary to confer availability must be in the work itself.

Works printed on paper (proposed 8.4.1)

The third edition of the *Code* excluded electrostatic and xerographic methods from conventional printing, in Article 9(3). The fourth edition does not mention these methods, and despite providing cut-off dates for the acceptability of methods other than conventional printing in Articles 8.4 and 8.5, does not define or restrict conventional printing. The effect is to make works produced by electrostatic and xerographic printing acceptable retroactively.

In practice, zoologists have accepted as published anything that looked like a journal article or monograph, whether produced by letterpress, inkjet printer, laser printer, or xerography. They have not accepted printing on thermal paper or output from dot-matrix printers, presumably because they could judge that they did not fulfil the requirements of Article 8.1.1.

With the proliferation of printing techniques, it is impractical to ask the user of a work to judge how it was produced. The proposed amendment therefore has a single, simplified article governing printing of works after 2009, accepting all forms of ink or toner on paper. The exceptions are hectographing and mimeographing, which it is clear the *Code* intended to exclude after 1985, and which are readily identified as reproductions of typewritten works. This exclusion is transferred to Article 9.2 in the proposed amendment, allowing the current Article 8.4 to be dropped.

The Commission is not aware of paper-based works that zoologists have judged not to be published because of electrostatic, xerographic, or other unconventional methods of production. Therefore, the proposed revision drops the current Article 8.5. If there are such examples, we would like to hear of them. This will help in assessing the advisability of this proposed simplification of the *Code*.

CD-ROM and DVD (proposed 8.4.2)

The fourth edition of the *Code* does not specifically refer to CD-ROM or DVD in its legislative text, but the Introduction (p. xxvii) refers to 'read-only laser disks', so clearly the intent was to include them as methods of production that do not employ printing on paper (current Article 8.6). As relatively few works have been published on CD-ROM or DVD, and the long-term durability and readability of those media are controversial, the proposed amendment disallows them after 2009.

It was in principle possible for a work on CD-ROM to have been issued before 2000 under Article 8.5 (then Article 8d), as a method other than conventional printing. The Commission, however, is not aware of any that contain the statements required under Articles 8.5.2 and 8.5.3. If such exist, they should be brought to the attention of the Commission.

Archiving (proposed 8.5)

The library community shares with the taxonomic community concern for long-term accessibility of published works, and has played a leading role in the development of archives such as Portico and LOCKSS mentioned in the Introduction. Both of these are curated, dark archives; ‘dark’ in that a work will be released by the archive only if the publisher no longer supports distribution; ‘curated’ in that the archive takes responsibility for migrating the content to new formats as needed to address changes in technology. This means, however, that the original format (e.g. PDF) may not be preserved even though the content is preserved.

Zoologists may be surprised to know that a number of taxonomic journals are already in such archives, for example, *The Auk*, *Copeia*, *Journal of Paleontology*, *Journal of Molluscan Studies*, *Zoologica Scripta*, and *Zoological Journal of the Linnean Society*. For Portico and LOCKSS, the titles held can be determined from their websites¹, but as yet, it is not possible to tell what range of years or specific issues are held unless one has audit-level access. The Commission intends to learn more about these and other archives to determine whether their mode of operation is, or can be modified to be, compatible with the needs of zoologists.

When it is found that the requirement for archiving was not fulfilled, the proposed amendment (8.5.3.3) requires that the case be referred to the Commission. While there is concern that this might lead to an increased number of cases, it seems necessary to formally decide whether a work was published. Otherwise, some names and acts might be rejected, while others in the same work might still be used by those unaware of the problem. Also, some names in a work might be better known than others, so it may be necessary to conserve some and reject others. Formal action by the Commission is the best way to achieve consistent results in such situations.

Recommendations for Article 8

A suggested minimum number of 25 copies in a printed edition is added in proposed Recommendation 8B to address several concerns. One is that ‘numerous’ in the current and previous editions of the *Code* is undefined. Article 8.6 of the current *Code* has been taken by some workers as establishing 5 copies as the minimum number, but that Article applies only to works not printed on paper. Some authors of electronic works currently use print publication of a small number of copies to satisfy requirements of availability, but it has been controversial whether such works should be considered ‘obtainable’ (Article 8.1.2) if sent only to a few colleagues. A similar route might be taken by authors finding that their electronic publications failed to meet requirements for archiving or registration. Also, Article 21.8 allows date of publication to be advanced by distribution of preprints, so this recommendation provides guidance on a minimum number to distribute.

¹ For titles committed to Portico and LOCKSS, see http://www.portico.org/about/committed_titles_alpha.html and http://www.lockss.org/lockss/Publishers_and_Titles_List.

A related issue is print-on-demand. Print-on-demand in principle could be used to produce a traditional print-run. One could order ‘numerous’ copies of a work (or 25 under the proposed revision), so the method fulfils the requirement of producing ‘simultaneously obtainable’ copies (Article 8.1.3). Yet print-on-demand can also be used to produce a single unique copy of a work, which would not be published under the *Code*. Because there could be multiple versions of a work, as the author finds and corrects errors, print-on-demand does not ‘assure’ identical copies. This is not a new problem: there are works known to have been produced in multiple silent editions, with changes between them that affect nomenclature – but each of those editions was in multiple copies. The ease and inexpensiveness of production without need for physical storage make such problems much more likely with print-on-demand. Furthermore, often the user of a work will not know that it was produced by print-on-demand and so subject to these concerns.

Concerns about the ease of modifying works produced by print-on-demand apply with even more force to works distributed electronically. If the text distributed by a publisher were to be silently modified in aspects that affect zoological nomenclature, it would be difficult to establish what the original text was, and on what date the modifications occurred, especially since there likely would not be date-stamped copies in libraries. Proposed Recommendation 8D therefore urges publishers not to allow changes to works after publication, particularly for electronic and print-on-demand works, and to handle any needed corrections through errata notices or other separate publications. The requirement for archiving within one year also limits the time during which silent changes might be made to electronic publications.

Registration of names (proposed 10.9)

The Commission intends ZooBank (www.zoobank.org) to be the *Official Register of Zoological Nomenclature*. While ZooBank has the potential to benefit taxonomy by making nomenclatural information readily *accessible* (Polaszek et al., 2005), the proposed amendment focuses on registration as a mechanism to make it readily *verifiable* that some of the criteria of availability have been fulfilled.

In particular, the user of an electronic work can determine that the requirements for archiving and registration have been fulfilled when registration numbers are given in the work. This also avoids a ‘limbo’ period during the one year allowed between publication and archiving (proposed article 8.5.3.3), when it would not be possible to tell if a work was published under the *Code*. The presence of the registration number allows the user to accept that the archiving requirement has been fulfilled, but the user can also directly examine the archive if desired. Should a work prove not to have been archived, a decision by the Commission would be needed, as explained above.

Although some authors have advocated that registration be mandatory for all names (Wheeler & Krell, 2007), the proposed amendment requires registration only for names published electronically. Those who wish to publish on paper may continue to do so, without the need for archiving or registration. The proposal does not require registration for other nomenclatural acts, such as lectotype and neotype designations and first revisers’ choices, as it is likely that this could cause problems, with authors neglecting to register many such acts. We hope that registration of names and acts will become a community standard, enforced by reviewers and editors, as has submitting genetic sequences to GenBank and publication of GenBank numbers.

Works issued on paper and electronically (proposed 21.9)

For the purposes of the *Code*, ‘electronic publication’ and ‘electronic-only’ publication are effectively synonymous. An electronic publication is not the same work as the printed edition of that publication, and each edition has its own criteria of availability. This does not mean that names and other nomenclatural acts are at risk of being published twice. The same situation already exists with repaginated reprints, or second printings that still state ‘new species’. In practice, when the relevant content is the same, most taxonomists deem that only one name was introduced or that only one nomenclatural act has occurred. This needs to be made explicit in the fifth edition of the *Code*, but as this is a broader concern than electronic publishing in itself, it is not treated here.

In cases where there are differences between versions (e.g., different spellings of a name, different specimens designated as the holotype), the versions are treated as different works. Divergence between electronic and online versions will surely be common (e.g., black-and-white images in print, color online), but such differences will probably only rarely affect availability of names and nomenclatural acts.

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Case 3470

***Halectinosoma* Vervoort, 1962 (Crustacea, Copepoda, Harpacticoida): proposed conservation of usage by designation of *Ectinosoma chrystalii* Scott, 1894 as the type species and by giving it precedence over *Pararenosetella* Lang, 1944**

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to conserve the widespread usage of the name *Halectinosoma* Vervoort, 1962 for a common genus of primarily marine harpacticoid copepods in the family ECTINOSOMATIDAE. The name *Halectinosoma* is threatened by the senior subjective synonym *Pararenosetella* Lang, 1944 (type species *Ectinosoma erythropus* Scott & Scott, 1896). In the interest of stability and universality it is proposed to set aside all previous type fixations for *Halectinosoma* Vervoort, 1962 and designate *Ectinosoma chrystalii* Scott, 1894 as the type species. The originally designated type species is *Ectinosoma sarsii* Boeck, 1873, but this species is now considered as being incertae sedis in the family ECTINOSOMATIDAE and its generic affinity is uncertain. It is also proposed that *Halectinosoma* Vervoort, 1962 be given precedence over *Pararenosetella* Lang, 1944 whenever the two names are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Copepoda; Harpacticoida; ECTINOSOMATIDAE; *Halectinosoma*; *Pararenosetella*; *Pararenosetella erythropus*; *Halectinosoma chrystalii*; harpacticoid copepods; cosmopolitan.

1. In a paper completely lacking in illustrations, Boeck (1865, p. 254) proposed the harpacticoid copepod genus *Ectinosoma* (family ECTINOSOMATIDAE), to which he assigned a single, new species, *Ectinosoma melaniceps* Boeck, 1865 (p. 254). Lang (1944, p. 6) divided the genus *Ectinosoma* Boeck, 1865 into the nominotypical subgenus *Ectinosoma* (type species *Ectinosoma melaniceps* Boeck, 1865 by monotypy) and a newly proposed subgenus *Halectinosoma*, to which he assigned two species, *Ectinosoma sarsii* Boeck, 1873 and *Ectinosoma curticorne* Boeck, 1873, without designating either as the type species. Although Lang (1944) designated a type species for each of the two groups of species within the subgenus *Halectinosoma*, *Ectinosoma sarsii* Boeck, 1873 for the *sarsii*-group and *Ectinosoma curticorne* Boeck, 1873 for the *curticorne*-group, the name *Halectinosoma* was not made available by that publication, as no type species for this subgenus was fixed (Article 13.3 of the Code). This status of the name *Halectinosoma* continued in Lang's (1948, p. 194) 'Monographie der Harpacticiden' where he added another 12 species to the *sarsii*-group and six species to the *curticorne*-group. To the former group of species he referred *Ectinosoma sarsii* Boeck, 1873; *Tachidius abrau* Kričagin, 1878; *Ectinosoma chrystalii* Scott,

1894; *E. propinquum* Scott & Scott, 1896; *E. herdmani* Scott & Scott, 1896; *E. armiferum* Scott & Scott, 1896; *E. finmarchicum* Scott, 1903; *E. neglectum* Sars, 1904; *E. elongatum* Sars, 1904; *E. brunnea* Brady, 1905; *E. proximum* Sars, 1919; *E. angulifrons* Sars, 1919; and *E. tenerum* Sars, 1920. As was pointed out by Karanovic & Pesce (2001, p. 282), Vervoort (1962, p. 399) explicitly designated *Ectinosoma sarsii* Boeck, 1873 as the type species of the subgenus *Halectinosoma*, but Lang (1965, p. 11), in raising *Halectinosoma* to generic status, did not mention Vervoort's (1962) designation (although the publication was cited in the reference list). A comparison of the diagnoses of the two subgenera given in Lang (1944, p. 6) shows that *Halectinosoma* is distinguished from *Ectinosoma* on the basis of the setation of the exopod of leg 5. Therefore, *Halectinosoma* is available from Vervoort's (1962) publication, which cites that page in Lang (1944) in this connection and designates a type species, and it takes the authorship *Halectinosoma* Vervoort, 1962, (Articles 13.1.1 and 13.3 of the Code).

2. Boeck's (1873, p. 45) original description of '*Ectinosoma Sarsii*' is very concise and lacks information on the morphology of the cephalosomic appendages, which is essential to distinguish the very closely related genera *Halectinosoma* and *Pseudobradya* Sars, 1904 (Huys et al., 1996, p. 170). In their reappraisal of *Halectinosoma sarsii* (Boeck, 1873) and related species, Clément & Moore (1995, p. 256) claimed it was uncertain whether *H. sarsii* belonged to *Halectinosoma* and consequently they placed it as a species incertae sedis in this genus. According to Scott & Scott (1896, p. 427), *Ectinosoma spinipes* Brady (1880, pp. 9–10, Plate XXXVI, figs. 1–10) is a junior subjective synonym of *Ectinosoma sarsii*, but as with many other earlier misidentifications of *H. sarsii*, this synonymy is probably incorrect (Clément & Moore, 1995). Most workers have adopted Sars's (1904, p. 30, Plate XVI) redescription of *Ectinosoma sarsii* as the standard of reference for correct identification, but Clément & Moore (1995) showed there were major discrepancies between Sars's material and the original description given by Boeck (1873). They consequently renamed Sars's species *Halectinosoma pseudosarsi* Clément & Moore, 1995. There are no verifiable published records of *Ectinosoma sarsii* as Boeck's (1873) type material apparently no longer exists. Jonas Axel Boeck was a Norwegian contemporary of Georg Ossian Sars, but it is probable that Sars did not see Boeck's material when he redescribed *Ectinosoma sarsii* 31 years after Boeck's untimely death in 1873. The type material of *E. sarsii* is not in the collections of the Zoologisk Museum in Oslo, and there are no records of it ever having been deposited there, or elsewhere in Norway.

3. As *Ectinosoma sarsii* Boeck, 1873 cannot be positively identified and therefore cannot adequately represent the genus *Halectinosoma* Vervoort, 1962, another species should be designated as the type species of *Halectinosoma*, as this designation will best serve stability and universality. Dussart & Defaye (1990, p. 11) cited (but not explicitly fixed) *Tachidius abrau* Kričagin, 1878 as the type species but, being one of the very few freshwater species of the genus *Halectinosoma*, it is not representative. Based on the latest checklist (Wells, 2007) and revision (Clément & Moore, 2007), the genus currently includes 67 valid species, of which all but four (*H. abrau*; *H. concinnum* (Akatova, 1935); *H. japonicum* (Miura, 1964); *H. uniarticulatum* Borutzky, 1972), are exclusively found in marine sediments. *Ectinosoma chrystalii* Scott, 1894 (p. 492) (currently *Halectinosoma chrystalii*) is here proposed as a new type species for the genus *Halectinosoma* Vervoort, 1962. *Ectinosoma chrystalii* was originally

described from the Gulf of Guinea (Scott, 1894, p. 492) but has since been recorded from the United Kingdom, Norway, Sweden and Nova Scotia (Clément & Moore, 1995, p. 264). The species was well known to Karl Lang who originally included it in his *sarsii*-group (Lang, 1948, p. 208). Both sexes of *Halectinosoma chrystalii* were adequately redescribed and illustrated by Clément & Moore (1995, pp. 264–269, figs 6–8), who pointed out that the type material was still extant (syntypes deposited in the Natural History Museum, London; reg. nos. 93.4.22.224–227) and that *Ectinosoma propinquum* Scott & Scott (1896, pp. 428–429, Plate 36 (figs 19, 27, 46), Plate 37 (figs 2, 15, 32, 55), Plate 38 (figs 9, 23, 34, 54)) was a junior subjective synonym of *E. chrystalii* Scott, 1894. It should be noted that the specific name has consistently been cited under the spelling ‘*chrystalli*’ (e.g. Lang, 1948, 1965; Clément & Moore, 1995; Wells, 2007); it is clear from Scott’s (1894) description (‘The species is named after Professor Chrystal, ...’) that the correct original spelling is ‘*chrystalii*’ and that under Article 33.3 of the Code ‘*chrystalli*’ is to be considered an incorrect subsequent spelling. The use of the genitive ending *-i* in a subsequent spelling of a species-group name that is a genitive based upon a personal name in which the correct original spelling ends with *-ii* is deemed to be an incorrect subsequent spelling, even if the change in spelling is deliberate (Article 33.4 of the Code). Since Scott (1894) described the species as ‘*Ectinosoma Chrystalii*’ the subsequent spelling ‘*chrystalli*’ is incorrect. *Halectinosoma chrystalii* belongs to a complex of 18 morphologically very similar species (Clément & Moore, 1995) that is central to the generic concept of *Halectinosoma* and largely coincides with Lang’s (1948) composition of the *sarsii*-group. Recent studies (e.g. Huys & Bodin, 1997; Karanovic & Pesce, 2001) have shown that several species of *Halectinosoma* should be placed in other genera and that the genus requires thorough revision. In the light of such revisionary work, designation of *Halectinosoma chrystalii* as type species would ensure that most currently included species remain in *Halectinosoma*, thus providing maximum stability to the taxonomy of the genus *Halectinosoma* and the family ECTINOSOMATIDAE, and requiring the lowest number of potential new combinations. Designation of *Halectinosoma pseudosarsi* Clément & Moore, 1995 (= *Ectinosoma sarsii* Boeck, 1873 sensu Sars, 1904) as the type species for the genus *Halectinosoma* is considered less favourable because a detailed description of the male is not available.

4. Lang (1944, p. 6) established the ectinosomatid genus *Pararenosetella* with a single originally included species, *Ectinosoma erythrops* Brady, 1880. A further four species were included in the genus by Lang (1948, p. 255): *Ectinosoma gracile* Scott & Scott, 1896; *Ectinosoma longicorne* Scott & Scott, 1896; *Ectinosoma tenuireme* Scott & Scott, 1896; and *Ectinosoma leptoderma* Klie, 1929. Chappuis (1954, p. 38) described *Pararenosetella meridionalis*, while Noodt (1955, pp. 87–89) added the new species *Pararenosetella psammae* Noodt, 1955 and transferred *Ectinosoma oblongum* Kunz, 1949 to *Pararenosetella*. In two subsequent papers, Noodt (1958, p. 58; 1964, p. 131) raised the number of species to ten by adding *Pararenosetella litoralis* Noodt, 1958 and *P. ghardagensis* Noodt, 1964. Lang (1965, p. 10) did not accept the genus, claiming there were two distinct, not closely related lineages of species in *Pararenosetella*, and reallocated the species to three previously described genera. *Ectinosoma erythrops*, *E. gracile*, *E. longicorne*, *E. tenuireme* and *E. oblongum* were transferred to *Halectinosoma*, *P. litoralis* to *Ectinosoma* and *P. meridionalis*, *P. psammae* and *E.*

leptoderma to *Hastigerella* Nicholls, 1935. Lang (1965) initially overlooked Noodt's (1964) description of *P. ghardagensis* but subsequently allocated it to the genus *Ectinosoma* in a postscript to his monograph (Lang, 1965, p. 547). Wells, 1965 (p. 34) designated the species figured as *Pararenosetella* sp. (?) by Wells (1963, p. 13, fig. 2A–B) as the type species of *Lineosoma* Wells, 1965 (p. 33). Despite Lang's (1965) rejection of the genus, two more species were added to *Pararenosetella*, *P. monniotae* Guille & Soyer, 1966 (p. 348) and *P. clavata* Rao & Ganapati, 1969 (p. 4). These two species were formally placed in the genus *Hastigerella* by Bodin (1967, p. 13) and Bodin (1976, p. 8), respectively. Since the type species, *Ectinosoma erythrops* Brady, 1880, is currently included in *Halectinosoma*, the generic name *Pararenosetella* Lang, 1944 is a senior subjective synonym of *Halectinosoma* Vervoort, 1962. Adopting this older name would however cause instability as it would upset the long-accepted name *Halectinosoma* in its accustomed meaning and result in many new combinations and undue confusion in the nomenclature and taxonomy of the ECTINOSOMATIDAE in general, and of its most speciose genus in particular. A list of 87 selected papers published by 64 different authors during the last 30 years, demonstrating the wide usage of the generic name *Halectinosoma*, is held by the Commission Secretariat. The generic name *Pararenosetella* has not been used as a valid name since Rao & Ganapati (1969).

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
 - (a) to set aside all previous fixations of type species for the nominal genus *Halectinosoma* Vervoort, 1962 and to designate *Ectinosoma chrystalii* Scott, 1894 as the type species;
 - (b) to give the generic name *Halectinosoma* Vervoort, 1962 precedence over the name *Pararenosetella* Lang, 1944, whenever they are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Halectinosoma* Vervoort, 1962 (gender: neuter), type species by subsequent designation *Ectinosoma chrystalii* Scott, 1894, as ruled in (1)(a) above, with the endorsement that it is to be given precedence over the name *Pararenosetella* Lang, 1944 whenever the two names are considered to be synonyms;
 - (b) *Pararenosetella* Lang, 1944 (gender: feminine), type species by original designation *Ectinosoma erythrops* Brady, 1880, with the endorsement that it is not to be given precedence over the name *Halectinosoma* Vervoort, 1962 whenever the two names are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *chrystalii* Scott, 1894 as published in the binomen *Ectinosoma chrystalii* (the specific name of the type species of *Halectinosoma* Vervoort, 1962, as ruled in (1)(a) above);
 - (b) *erythrops* Brady, 1880, as published in the binomen *Ectinosoma eythrops* (the specific name of the type species of *Pararenosetella* Lang, 1944).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3471***Heterolaophonte* Lang, 1948 (Crustacea, Copepoda, Harpacticoida): proposed precedence over *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941**

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to conserve the generic name *Heterolaophonte* Lang, 1948 for a group of marine harpacticoid copepods (family LAOPHONTIDAE) by giving it precedence over the unused senior names *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941 whenever these names are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Copepoda; Harpacticoida; LAOPHONTIDAE; *Heterolaophonte*; *Mesolaophonte*; *Monolaophonte*; *Heterolaophonte stroemii*; harpacticoid copepod; cosmopolitan.

1. In his revision of the harpacticoid copepod family LAOPHONTIDAE Scott, 1905, Nicholls (1941, p. 98) divided the type genus *Laophonte* Philippi, 1840 into five subgenera: *Laophonte* Philippi, 1840 (type species *Laophonte cornuta* Philippi, 1840 by monotypy), *Mesolaophonte* Nicholls, 1941 (type species *Laophonte littoralis* Scott & Scott, 1893 by original designation), *Metalaophonte* Nicholls, 1941 (type species *Laophonte depressa* Scott, 1894 by original designation), *Monolaophonte* Nicholls, 1941 (type species *Laophonte curvata* Douwe, 1929 by monotypy) and *Neolaophonte* Nicholls, 1941 (type species *Laophonte trilobata* Willey, 1929 by original designation).

2. Lang (1944, p. 34) established the genus *Heterolaophonte* (family LAOPHONTIDAE) but no type species was fixed. Lang (1944) divided the genus into seven species-groups and designated a 'Typus' for each: (1) *stroemii*-group (spelled by Lang as *strömi*) (typified by *Cyclops stroemii* Baird, 1837) (spelled by Lang as *strömi*), (2) *minuta*-group (typified by *Laophonte minuta* Boeck, 1873), (3) *littoralis*-group (typified by *Laophonte littoralis* Scott & Scott, 1893), (4) *quinespinosa*-group (typified by *Laophonte quinespinosa* Sewell, 1924), (5) *discophora*-group (typified by *Laophonte discophora* Willey, 1929), (6) *campbelliensis*-group (typified by *Laophonte campbelliensis* Lang, 1934) and (7) *tenuispina*-group (typified by *Laophonte tenuispina* Lang, 1934). Wells et al. (1982, p. 178) proposed a new genus *Quinquelaophonte* Wells, Hicks & Coull, 1982 (type species by original designation *Laophonte quinespinosa* Sewell, 1924) for the species of the *quinespinosa*-group. Nowadays, Lang's other species-groups are no longer recognised as taxonomically useful units (Wells, 2007, p. 85).

3. Many of the names and nomenclatural acts proposed by Lang (1948) originated in his 1944 preamble to his monograph. Lang's (1944) paper was not widely disseminated (but nevertheless satisfied the criteria of publication) and most

post-1948 authors have ignored it or were not aware of its existence. Recent workers (e.g. Wells & Rao, 1987; Huys, 1990, 1992; Huys & Willems, 1989; Huys & Conroy-Dalton, 1996; Bodin, 1997; Seifried, 2003; Wells, 2007) have begun to credit Lang (1944) with the authorship of the respective names and acts but it has remained unnoticed that some genus-group names, such as *Heterolaophonte*, were not explicitly made available by that work (Article 13.3 of the Code). As pointed out by Vervoort (1964, p. 333), Lang (1948, p. 1368) formally designated *Cyclops stroemii* Baird, 1837 as the type species of *Heterolaophonte* and hence the authorship and date of the genus-group name *Heterolaophonte* should be attributed to Lang (1948). Vervoort & Holthuis (1983, p. 56) subsequently pointed out that Norman (1903, p. 368) had already designated *Cyclops stroemii* as the type species of *Dactylopusia* Norman, 1903 (family DACTYLOPUSIIDAE) (a new replacement name for *Dactylopus* Claus, 1863 *non* Gill, 1860). Since Norman (1903), when designating *Cyclops stroemii* as the type species of *Dactylopusia*, had intended the dactylopusiid species identified by Claus (1863, p. 126, Plate XVI, Figs. 1–6) as such and not the real *Cyclops stroemii*, Vervoort & Holthuis (1983) asked the Commission to use its plenary power to set aside all previous type fixations made for *Dactylopusia* Claus, 1863 and to designate *Dactylopus tisboides* Claus, 1863 as type species. The Commission voted in favour of Vervoort & Holthuis's (1983) application and, as a result, the generic name *Heterolaophonte* Lang, 1948 and the specific name *Cyclops stroemii* Baird, 1837 (type species of *Heterolaophonte* Lang, 1948) were placed on the Official Lists of Generic and Specific Names in Zoology, respectively (Opinion 1356, December 1985, BZN 42(4): 335–337). Since Baird (1837, p. 330) had named the species after the prominent Norwegian zoologist Hans Ström (also spelled Strøm), under Article 32.5.2.1 the correct spelling is *stromii* as originally proposed by Baird (1837). It should, however, be noted that Vervoort & Holthuis (1983, p. 56) had changed the spelling of *stromii* to *stroemii*, and the latter spelling was accepted by the Commission. In order to ensure consistency with the ruling in Opinion 1356 the incorrect subsequent spelling *stroemii* is to be preserved unaltered and no Official Correction (Article 80.4) is required. Some authors (Apostolov & Marinov, 1988; Bodin, 1997; Wells, 2007) have also erroneously attributed *Cyclops stroemii* to Baird (1834) but that paper only quoted the species as *Cyclops brevicornis* O.F. Müller, 1776 (p. 97) as which it had originally, but incorrectly, been identified. The original description of *Cyclops stroemii* (as '*Cyclops Stromii*') was given in Baird (1837, p. 330).

4. Since Lang (1948) assigned both *Laophonte littoralis* Scott & Scott, 1893 (spelled incorrectly by Scott & Scott (1893, p. 238) as *littorale*) (type species of *Mesolaophonte* Nicholls, 1941) and *Laophonte curvata* Douwe, 1929 (type species of *Monolaophonte* Nicholls, 1941) to the genus *Heterolaophonte*, the genus-group names *Mesolaophonte* and *Monolaophonte* are currently senior subjective synonyms of *Heterolaophonte*. Nicholls's (1941) subgeneric division was based solely on the endopodal armature of the female third pair of swimming legs and his system has been criticised for its artificiality by Lang (1948, p. 1620) and Vervoort (1964, p. 314). Both authors abolished Nicholls's subgenera but they were not formally synonymised with or subsumed within existing genera in prevailing usage. Since *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941 are perfectly legitimate and available names, they cannot be ignored. The subgeneric name *Mesolaophonte* has only been used twice as a valid name since Lang (1948). Krishnaswamy (1959) assigned his new

species *Laophonte pseudoculata* Krishnaswamy, 1959 (spelled by Krishnaswamy (1959, p.29) as *pseudo-oculata*) to *Laophonte* (*Mesolaophonte*) and Raibaut (1962) suggested a similar subgeneric assignment for *Laophonte commensalis* Raibaut, 1962. *Heterolaophonte* is one of the three most speciose genera in the LAOPHONTIDAE (the others being *Laophonte* Philippi, 1840 and *Paralaophonte* Lang, 1948), currently accommodating 33 valid species and 3 subspecies (Wells, 2007; Varela & Ortiz, 2008), and has been recorded from all oceanic basins including the Antarctic Ocean (Apostolov & Pandourski, 2001). Papers referring to *Heterolaophonte* include studies focussing on taxonomy (e.g. Lang, 1965; Hicks, 1975; Mielke, 1975, 1981; Willen, 1992), ontogeny (Dahms, 1989, 1990, 1993), ultrastructure (Hosfeld, 1994), seasonality and reproduction (e.g. Johnson & Scheibling, 1986; Rao & Sarma, 1994; Chertoprud & Azovsky, 2006), feeding (Azovsky et al., 2005), vertical migration (Walters, 1988), dispersal (Ólafsson et al., 2001; Thiel & Gutow, 2005), community structure (e.g. Hartzband & Hummon, 1973; Hicks, 1980; Hockin, 1982; Jarvis & Seed, 1996; Gheerardyn et al., 2008) and symbiotic relationships with other invertebrates (Boer, 1971; Dumitrescu & Marcus, 1967; Varela & Ortiz, 2008) and epibiotic microorganisms (Hockin, 1984; Carman & Dobbs, 1998). A list of 110 selected references by 72 authors published in the last 50 years demonstrating the wide usage of the name *Heterolaophonte* Lang, 1948 is held by the Commission Secretariat. The replacement of the well-known and universally accepted name *Heterolaophonte* Lang, 1948 by one of its two underused senior subjective synonyms would result in many new combinations and undue confusion in the nomenclature and taxonomy of the LAOPHONTIDAE in general, and of its most speciose genus in particular. Unfortunately, since the conditions of Article 23.9.1 are not met (the senior synonyms have been used as valid names after 1899), reversal of precedence is only possible by a Commission's ruling (Article 23.9.3). To promote stability it is proposed to give the name *Heterolaophonte* Lang, 1948 precedence (Article 81.2.3) over both *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941 whenever these names are considered synonyms. However if, in the light of future revisions, *Heterolaophonte* is found not to be congeneric with *Mesolaophonte* and/or *Monolaophonte* both senior genus-group names are still available to denote the two taxa as originally proposed by Nicholls (1941).

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the generic name *Heterolaophonte* Lang, 1948 precedence over the names *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941, whenever it and either of the other two are considered to be synonyms;
- (2) to emend the entry on the Official List of Generic Names in Zoology for *Heterolaophonte* Lang, 1948 (gender: feminine), type species by original designation, *Cyclops stroemii* Baird, 1837, to record that it is to be given precedence over the names *Mesolaophonte* Nicholls, 1941 and *Monolaophonte* Nicholls, 1941, whenever it and either of the other two are considered to be synonyms;
- (3) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Mesolaophonte* Nicholls, 1941 (gender: feminine), type species by original designation *Laophonte littoralis* Scott & Scott, 1893, with the endorsement

- that it is not to be given precedence over the name *Heterolaophonte* Lang, 1948 whenever the two names are considered to be synonyms;
- (b) *Monolaophonte* Nicholls, 1941 (gender: feminine), type species by monotypy *Laophonte curvata* Douwe, 1929, with the endorsement that it is not to be given precedence over the name *Heterolaophonte* Lang, 1948 whenever the two names are considered to be synonyms;
- (4) to place on the Official List of Specific Names in Zoology the following names:
- (a) *littoralis* Scott & Scott, 1893, as published in the binomen *Laophonte littoralis* (specific name of the type species of *Mesolaophonte* Nicholls, 1941);
- (b) *curvata* Douwe, 1929, as published in the binomen *Laophonte curvata* (specific name of the type species of *Monolaophonte* Nicholls, 1941).

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Case 3428***Palaemon rosenbergii* De Man, 1879 (currently *Macrobrachium rosenbergii*; Crustacea, Decapoda): proposed conservation of usage by designation of a neotype**

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Abstract. The purpose of this application, under Article 75.6 of the Code, is to conserve the usage of the specific name of *Macrobrachium rosenbergii* (De Man, 1879) for a commercially important giant freshwater prawn from Southeast Asia by designating a neotype. Recent taxonomic reappraisals show that the two subspecies of this prawn, *Macrobrachium rosenbergii rosenbergii* (De Man, 1879) and *M. rosenbergii dacqueti* (Sunier, 1925) are in fact distinct species. The usage of the name *M. rosenbergii* for the species of prawn that is predominantly fished, cultured and studied by biologists is threatened, as its recently designated lectotype is *M. dacqueti*, while the holotype of *M. rosenbergii* is a different species, which has generated much less commercial and scientific interest. As substantial confusion will result if the names are changed, it is proposed that the existing holotype of *Macrobrachium rosenbergii* (De Man, 1879) be set aside and the lectotype of *M. dacqueti* (Sunier, 1925) be designated as neotype of *Macrobrachium rosenbergii* in its place. This action will allow biologists to retain the name *M. rosenbergii* for the commercially valuable species and will result in the less frequently used name *M. dacqueti* becoming a junior objective synonym of *M. rosenbergii*. For the species defined by the current holotype of *M. rosenbergii*, a new name *Macrobrachium wallacei* is proposed and a holotype is designated.

Keywords. Nomenclature; taxonomy; Crustacea; Decapoda; PALAEMONIDAE; *Macrobrachium*; *Macrobrachium dacqueti*; *Macrobrachium rosenbergii*; *Macrobrachium wallacei*; giant freshwater prawn; Southeast Asia.

1. The purpose of this application is to set aside the holotype of *Palaemon rosenbergii* De Man, 1879 (currently *Macrobrachium rosenbergii*), a commercially important giant freshwater prawn, and to designate a neotype for this species. This action is necessary to conserve the usage of the name *Macrobrachium rosenbergii* (De Man, 1879, p. 167) for the freshwater prawn from South and Southeast Asia that has

been the subject of hundreds of technical papers over the years. Failure to conserve this name will cause substantial confusion among fisheries and aquaculture biologists. The species universally known as *M. rosenbergii* (De Man, 1879) is widely fished in South and Southeast Asia, and extensively cultured in Asia, America and Africa. However, the correct name for this species is *Macrobrachium dacqueti* (Sunier, 1925). The holotype of *M. rosenbergii* is from New Guinea and represents a less important species whose range is restricted to the east of Huxley's Line.

2. Rumphius (1705, pl. 1, fig. B), in his '*D'Amboinsche Rariteitkamer*', was the first to record the presence of a giant freshwater prawn in Southeast Asia. The figure in his book, however, was actually not provided by Rumphius himself, but was later added to his manuscript by the editor of the book (Holthuis, 1959, 2000; Beekman, 1999). Fabricius (1793, p. 479) identified the species in Rumphius (1705) as *Astacus carcinus* (Linnaeus, 1758) but later (Fabricius, 1798, p. 402) assigned the species to *Palaemon* Weber, 1795. De Man (1879) described *Palaemon rosenbergii* from Andai, New Guinea (today Papua, Indonesia) on the basis of a single large, ovigerous female. This holotype female, measuring 68.0 mm in carapace length, is still extant (Nationaal Natuurhistorisch Museum, Leiden, RMNH D 1097). Ortmann (1891) and De Man (1892), however, regarded *P. rosenbergii* as only a variety of *P. carcinus*. Cowles (1914) argued that two distinct forms appeared to be present on the basis of Philippine and Indian material, but continued to use the name *P. carcinus* for both. Sunier (1925, p. 117) challenged this identification and showed that *Cancer carcinus* Linnaeus, 1758 (cited by him as *Palaemon carcinus*) was a wholly American species. He proposed a new name, *Palaemon dacqueti* Sunier, 1925 for the Indo-West Pacific species with his own specimens from Java as syntypes. Holthuis (1950), in his revision of the genus *Macrobrachium*, agreed with Sunier (1925) but commented that the name *Palaemon rosenbergii* De Man, 1879 should be used as it was senior to *P. dacqueti* Sunier, 1925. *Palaemon spinipes* Schenkel, 1902 (p. 501), described from Kema in northern Sulawesi, has also been regarded as a junior synonym of *P. rosenbergii* (see Holthuis, 1950, 2000; Wowor & Ng, 2007). Almost all workers since Holthuis (1950) have accepted that there was only one species of commercially exploited giant freshwater prawn in the Indo-West Pacific and its name was *Palaemon rosenbergii* De Man, 1879 (currently *Macrobrachium rosenbergii*) (see Holthuis, 2000; Holthuis & Ng, in press, for a more detailed history).

3. Johnson (1960, 1973) recognised two subspecies of *M. rosenbergii*. The western subspecies, which occurred on the Asian mainland and in Malaysia (Peninsular as well as Sarawak and Sabah in Borneo), he named *M. rosenbergii schenkeli* (see Johnson, 1973, p. 277) based on one male (NHM 1889.6.17.139, type locality Tavoy, Burma) and the eastern subspecies *M. rosenbergii rosenbergii* (De Man, 1879). This conclusion was supported by morphometric and allozyme studies (Hedgecock et al., 1979; Lindenfelser, 1984) and the findings have been further corroborated by recent studies of mitochondrial DNA and microsatellites (de Bruyn et al., 2004; Chand et al., 2005). Holthuis (1995), however, noted that, if two subspecies were to be recognised, the correct name for the western subspecies would be *M. rosenbergii dacqueti* (Sunier, 1925) and the correct name of the eastern subspecies would be *M. rosenbergii rosenbergii* (De Man, 1879).

4. Wowor & Ng (2001) were the first to suggest, on the basis of their own morphological and morphometric studies, that the two subspecies should be

recognised as distinct species, i.e. *M. rosenbergii* (De Man, 1879) and *M. dacqueti* (Sunier, 1925). However, this work was published only as a meeting abstract, and while it has been cited (e.g. Cai & Ng, 2001; Wowor & Choy, 2001; Cai & Ng, 2002; Bruyn et al., 2004; Cai et al., 2004; Wowor et al., 2004; Chand et al., 2005), it has few details and is not a published work under the Code (Article 9.9). All the above authors, however, have kept the status quo in recognising the two taxa only as subspecies. The complete paper with full details on the taxonomy of these prawns was only recently presented (Wowor & Ng, 2007), with morphological and morphometric datasets, colours in life of young and adult, and differences in culture requirements, showing that the two taxa are, in fact, distinct species. *Macrobrachium rosenbergii* (De Man, 1879) as defined by the current holotype occurs in Australia, Papua New Guinea, eastern Indonesia (east of Huxley's Line – including Bali, Moluccas, West Papua and Papua New Guinea) and the Philippines (including Palawan), while *M. dacqueti* (Sunier, 1925) occurs throughout the rest of Southeast Asia, in the western part of Indonesia (west of Huxley's Line including all of Borneo, Java and Sumatra), Malaysia and Singapore, Indochina, southern China, Burma, India, Sri Lanka and eastern Pakistan.

5. At present, the giant prawn universally known as *Macrobrachium rosenbergii* (De Man, 1879) is widely fished in South and Southeast Asia, and extensively cultured in Asia, America and Africa. It is one of the most commercially important crustaceans in the world. In the last decade, average *M. rosenbergii* production rose by some 35% in quantity and almost 20% in value. In 1993, the overall production was 17,164 tons, worth US\$116,799,000, and in 2005 it reached 205,033 tons with a net value of US\$896,263,000 (FAO, 2007). Giant freshwater prawn farming is thus a major contributor to global aquaculture, both in terms of quantity and value. Due to its commercial value, there has been extensive research ranging from fisheries, aquaculture, taxonomy, morphology, development, anatomy, physiology, biochemistry and ecology to social behaviour (see Holthuis, 2000; Holthuis & Ng, in press, for reviews). The prawn has also been the subject of numerous PhD, MSc and Honours projects from all over the world (see Karplus et al., 2000). A search of *Web of Science* (<http://scientific.thomson.com/products/wos/>) between just 2000 and 2005 revealed an average of 29 scientific papers published each year, and in 2006 alone there were 69 research articles published about its culture, including studies on nutrition, disease control, physiology and biochemistry. There are also hundreds of other papers on this species not indexed in *Web of Science*, with New & Valenti (in press) listing over 200 technical publications in the last 50 years that use the name '*Macrobrachium rosenbergii*' for this prawn. The academic interest in this species is clearly very substantial.

6. The species that is widely cultured in America, Asia and Africa actually originates from Southeast Asia. Almost all cultured populations found outside the natural range of this species can be traced to brood-stock imported to Hawaii from Malaysia (Karplus et al., 2000). Thailand also supplies parental stock to several Asian countries such as Japan (Gomez Diaz, 1987), the Philippines and Israel (M. Rowena R. Romana-Eguia, South East Asian Fisheries Development Center, the Philippines, and A. Barki, Agricultural Research Organization, Israel, personal communications). Wowor & Ng's (2007) conclusions have created a major problem concerning the scientific name of this commercially important giant freshwater prawn. On the basis of

Wowor & Ng's (2007) datasets, the Southeast Asian prawn should be called *M. dacqueti* (Sunier, 1925), and the name *M. rosenbergii* (De Man, 1879) should be restricted to a species, defined by the holotype of *M. rosenbergii* from New Guinea, which is not primarily involved in the aquaculture industry and on which much less research work has been done. This situation is clearly unsatisfactory, does not serve the cause of nomenclatural stability and goes against the principle of common usage. Wowor & Ng (2007, p. 331) stated that it would be advisable for the International Commission on Zoological Nomenclature, through the use of its plenary power, to set aside the holotype of *Palaemon rosenbergii* De Man, 1879 and replace it with a neotype from Southeast Asia representing the commercially important western species. They suggested using the lectotype of *Palaemon dacqueti* Sunier, 1925 from Java as the neotype of *Palaemon rosenbergii* De Man, 1879. The neotype so designated will be the male specimen measuring 74.1 mm in carapace length, collected from Batavia [Jakarta], Java, Indonesia, by P. Bleeker between 1842–1860, deposited in the Nationaal Natuurhistorisch Museum, Leiden, The Netherlands, under the catalogue number RMNH D 1065. As this specimen is also the lectotype of *Palaemon dacqueti* Sunier, 1925 (as designated by Wowor & Ng, 2007, p. 327), both names become objective synonyms. As a result of this action, the name *Macrobrachium rosenbergii* will be conserved for the commercially important species. This action also means that the species from New Guinea, Australia and Philippines, previously known as *M. rosenbergii*, will need a new name. The only synonym, *Palaemon spinipes* Schenkel, 1902, is a junior homonym of *Palaemon spinipes* Desmarest, 1817 (p. 513), and, as such, is unavailable. A new name, *Macrobrachium wallacei* sp. nov., is here proposed for the species identified as *Macrobrachium rosenbergii* in Wowor & Ng (2007). A male measuring 79 mm in carapace length, collected from the Laloki River ca. 30 miles from Port Moresby, Papua New Guinea, by M. Rapson, 1972, and deposited in the Nationaal Natuurhistorisch Museum, Leiden, The Netherlands, under the catalogue number RMNH D 28730, is designated here as the holotype of *Macrobrachium wallacei*. The species is named after Alfred Wallace, the famed 19th century English naturalist and discoverer of 'Wallace's Line'.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *Palaemon rosenbergii* De Man, 1879 and to designate specimen no. RMNH D 1065 at the Nationaal Natuurhistorisch Museum, Leiden, The Netherlands (lectotype of *Palaemon dacqueti* Sunier, 1925) as the neotype.
- (2) to place on the Official List of Specific Names in Zoology the name *rosenbergii* De Man, 1879, as published in the binomen *Palaemon rosenbergii* and as defined by the neotype designated in (1) above.

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Case 3473***Conops testacea* Linnaeus, 1767 (currently *Myopa testacea*) (Insecta, Diptera): proposed conservation of usage of the specific name by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75.6 of the Code, is to conserve the established and current species concept and usage of the name *Myopa testacea* (Linnaeus, 1767). This usage is threatened by the designation of a specimen in Linnaeus's collection as a lectotype of *Conops testacea* which implied that the name was misapplied by previous authors. This designation has not so far been accepted by any subsequent authors, and it is therefore proposed that the long established usage of the name be conserved by setting aside all previous type fixations for *M. testacea* (Linnaeus, 1767) and that a neotype that is in accord with the current use of the name be designated.

Keywords. Nomenclature; taxonomy; Diptera; CONOPIDAE; MYOPINAE; *Myopa*; *Myopa testacea*; *Myopa extricata*; *Myopa pellucida*; thick-headed flies; Palaearctic region.

1. The subject of this application is the need to resolve confusion which has resulted from the transfer of a specific name for a well known and widespread species in the family known as thick-headed flies (Diptera, CONOPIDAE). Linnaeus (1767, p. 1006) established the name *Conops testacea* for a species of fly in this family which was later placed in the genus *Myopa* Fabricius, 1775. The taxonomy of the species of this genus is complex, there being considerable intraspecific variation, with resulting confusion between the species.

2. Collin (1960, p. 151) established the name *Myopa extricata* for a species in which, inter alia, the black markings on the thoracic dorsum of the adult do not extend as far as the base of the scutellum. He reserved the name *Conops testacea* for another species in which the black markings do extend to the base of the scutellum. Other characters also show that these two species are distinct, particularly in the male and female genitalia. Stuke & Clements (2005, p. 7) have recently proposed that *Myopa extricata* Collin, 1960 is a junior synonym of *Phorosia pellucida* Robineau-Desvoidy, 1830, p. 244 (currently *Myopa pellucida*).

3. Collin (1960) noted that most of the earlier names for species of the genus *Myopa* had been extensively misused, causing the synonymy of individual species to become very complex. He suggested, in our view correctly, that the true identity of the species dealt with by older authors would always remain open to question and that it would therefore be advisable to treat the older names as having been stabilised by later students either for a definite species, or for a small species-group, and to deal with them on that basis except where misidentification could definitely be proved.

4. All subsequent significant taxonomic works have followed Collin's interpretation of *Conops testacea* either implicitly (e.g. Lyneborg, 1962; Smith, 1969; Stuke & Clements, 2008) or by default through using the extent of the wing-patterning as a key character to separate *Conops testacea* and *Myopa extricata*. Works in which the latter applies include the major revision by Chvála (1965) of central and western European MYOPINAE, and the key-works of Bańkowska (1979), Veen (1984), Dunk (1994), Rivosecchi (1996) and Stuke (1997). In fact, neither the patterning of the wings nor the extent of black markings on the thorax are entirely diagnostic in all cases.

5. Thompson (1997) reviewed the Linnaean species of *Conops* Linnaeus, 1758. He stated that the sole specimen standing under the name '*Conops testacea*' in the Linnaean collection, a female, has a mixture of features characteristic of both *testacea* and *extricata*, although the characteristics listed by him are in our opinion mostly referable to the latter. This specimen was also examined by DKC in 1995, when it was confirmed that the black markings of the thorax do not extend to the base of the scutellum, and that in addition the specimen does not agree in other characters with the established concept of *Conops testacea*, including in the visible features of the female genitalia. The specimen generally agrees with the current understanding of *Myopa extricata* except in having comparatively poorly marked wings, which could either be an artefact of age or a product of the known variability of this feature. Thompson (1997) acknowledged the opinion of DKC that the specimen was in fact most probably a pale and poorly-marked specimen of *Myopa extricata*.

6. Thompson (1997, p. 267) designated this specimen as lectotype for the *Conops testacea*, making *Myopa extricata* Collin, 1960 a junior subjective synonym. This had the effect of transferring the name *Conops testacea* to the species previously known as *Myopa extricata*, leaving the species in which the thorax is normally black up to the base of the scutellum requiring a new name. As far as we are aware no such name has been proposed to date, presumably because several names have been cited as possible synonyms in earlier literature. None of these has been elsewhere treated as a valid name for the species to date.

7. It is not possible to be certain from the description given by Linnaeus on which species the name *Conops testacea* was based, although the statement 'alis hyalinis' would suggest that it was probably the *testacea* of Collin and other modern authors. In addition, there is no way of knowing whether or not the specimen in the Linnaean collection (Box 23), which is labelled 'testacea ex deper' and also 'ferruginea' (verso '4') is an authentic type specimen, one of a series of syntypes or merely a specimen which was added to the collection at a later date: Linnaeus (1767) gives no information on this matter. Regarding the uncertainty about whether specimens in Linnaeus's collection are syntypes, see also Case 3090 (BZN 57(2): 87–93, June 2000),

and the resulting Opinion 1982 (September 2001; BZN **58**(3): 241–242) and Case 3259 (December 2004; BZN **61**(4): 241–245), and the resulting Opinion 2153 (June 2006; BZN **63**(2): 146–147).

8. The ‘habitat’ (= type locality) of *Conops testacea* was stated by Linnaeus (1767) to be ‘Europa australis. Ascanius’. ‘Ascanius’ could possibly refer to the area around Iznik Gölü (Lake Iznik, Bursa Province, Turkey) which was anciently known as ‘Ascanius’, but it is considered more likely to refer either to another collector or describer, or to a collection where he had seen a specimen of the species being described. Peder Ascanius (1723–1803), a Norwegian biologist, was amongst the known students of Linnaeus, and elsewhere in his work of 1767 Linnaeus refers to specimens which were presumably either collected by others, described by others or standing in the collections of others, using this same format (e.g. under *Musca diadema* (currently *Medetera diadema*) (p. 982) ‘Habitat in Europa. Fabricius.’ and *Tabanus calens* (p. 1000) ‘Habitat in America. Mus.[eum] De Geer.’). This format could suggest that the specimen on which the original description was based did not necessarily lie in the collection of Linnaeus, in which case the designation by Thompson (1997) would be invalid and no ruling by the Commission would be required. Unfortunately, however, it is not possible to be certain whether or not this is the case.

9. As far as we are aware, no other authors have to date followed the interpretation proposed by Thompson (1997). Despite being quite widely known about in the dipterological community, Thompson’s action appears to have been consistently ignored by subsequent workers. This is possibly due to uncertainty regarding the implications of the action with respect to other related species, as well as general awareness of the taxonomic difficulties and instability inherent in the *testacea*-group as a whole. It may also be due in part to the comparatively small number of dipterists who have been actively involved in the taxonomy of the group in recent years, all of whom appear to have tacitly concluded that the interpretation proposed by Thompson (1997) should be ignored.

10. The previous concept of the species known as *Conops testacea* has been well established and in common usage for nearly 50 years. Recently published checklists (e.g. Chandler, 1998, British Isles; Merz & Clements, 1998, Switzerland; Kassebeer, 1999, Germany; Pakalniškis *et al.* 2000, Lithuania; Stuke & Petersen, 2001, Denmark; Weele, 2001, Hungary; Carles-Tolrá & Báez, 2002, Spain, Portugal and Andorra; Veen, 2002, The Netherlands; Pape & Clements, 2005, Europe; Chvála, 2006, Czech Republic & Slovakia) have all continued to use the established species interpretation.

11. In addition, there have been numerous other publications relating to the CONOPIDAE in the period since 1997, and as far as we can ascertain none of these have followed the interpretation proposed by Thompson (1997). Relevant selected examples include taxonomic works (e.g. Chao & Qiao, 1998; Zimina, 2000) as well as studies in ecology (e.g. Flügel, 1999), faunistics (e.g. Carles-Tolrá, 1999; Mei, 2000; Barták & Kubik, 2005; Withers, 2007), nature conservation (e.g. Mei, 2002; Arnold & Jentsch, 2004) and agriculture (e.g. Ssymank, 2001). A list of 34 additional references demonstrating the prevailing usage of the names *Myopa testacea* and/or *Myopa extricata* [= *pellucida*] after 1997 is held by the Commission Secretariat.

12. The interpretation resulting from the lectotype designation proposed by Thompson (1997) nevertheless remains taxonomically valid and could theoretically be adopted at any point in the future. The published evidence to date suggests that such adoption is unlikely to be universal, however, and this could then lead to the development of two parallel avenues of interpretation in the taxonomic literature. The interpretation proposed by Thompson (1997) therefore represents an additional potential source of confusion in a group which is already beset by considerable difficulties in identification and interpretation. The transfer of the well-recognised and understood name *Conops testacea* (currently *Myopa testacea*) to another species would threaten stability and universality in the nomenclature of the group.

13. Both *Myopa testacea* of authors and *M. extricata* of authors are widespread species, occurring throughout the Palaearctic region and beyond. In addition it is likely that other sibling species may yet be segregated in the future, possibly leading to further confusion and misapplication of names. It is therefore considered important and desirable that the previous and, until present, universal use of the name *Conops testacea* (currently *Myopa testacea*) be maintained.

14. In order to fix the established usage of the name *Conops testacea* we therefore propose that the Commission should set aside the lectotype designation by Thompson (1997) and designate a neotype in accordance with Article 75.6 of the Code. We have accordingly selected a male specimen in the collections held by the Natural History Museum, London which agrees closely with the currently accepted concept of the species *Conops testacea*, and this has been labelled: 'ENGLAND, I.o.W. [=Isle of Wight]/Ventnor – Steephill/Cove Area/9.vi.1979/G.R. Else. NEO-TYPE designated by D.K. Clements, J.-H. Stuke & P.J. Chandler, July 2008', subject to the Commission's ruling on this application.

15. We recognise that the designation of a specimen from north-western Europe is potentially at odds with the description given by Linnaeus of a species from 'Europa australis'. We justify this, however, on the grounds that the selected specimen agrees absolutely with the concept of *Conops testacea* (currently *Myopa testacea*) as applied by modern authors from Collin (1960) onwards, and also that it both agrees with, and does not in any way conflict with, the description given by Linnaeus (1767). In particular, the specimen agrees absolutely with the species concept as defined in the most recent and comprehensive treatment of the *Myopa testacea* species-group provided by Stuke & Clements (2008). During the preparation of the latter work these authors found substantially greater variation in the characters of *Myopa testacea* specimens from southern Europe, particularly with respect to coloration, thus raising the possibility that further sibling species await taxonomic segregation in the southern European region.

16. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *Conops testacea* Linnaeus, 1767, and to designate as neotype the male specimen deposited in the Natural History Museum, London, as specified in para. 14;
- (2) to place on the Official List of Specific Names in Zoology the name *testacea* Linnaeus, 1767, as published in the binomen *Conops testacea* and as defined by the neotype designated in (1) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3466

Pachyramphus G.R. Gray in Gould, 1839 (July) (Aves, Passeriformes): proposed conservation of usage of the generic name

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the name *Pachyramphus* G.R. Gray in Gould, 1839 (July) (family COTINGIDAE) in its accustomed usage, for a genus of cotinga from Central and South America. It is proposed that the name *Pachyramphus* Gould, 1839 (January) and all its uses before July 1839 be suppressed.

Keywords. Nomenclature; taxonomy; Aves; Passeriformes; COTINGIDAE; TYRANNIDAE; *Pachyrhynchus*; *Pachyramphus*; *Psaris cuvierii*; *Pachyramphus viridis*; Central America; South America; cotingas; becards.

1. The International Commission on Zoological Nomenclature (Opinion 928, August 1970; BZN 27: 93–94) suppressed the avian name *Pachyrhynchus* Wagler in Hahn (1822, pl. 6 and text), a junior synonym of *Tityra* Vieillot, 1816, for purposes of both the Principle of Priority and the Principle of Homonymy in order to conserve the coleopteran name *Pachyrhynchus* Germar, 1824.

2. Spix (1825, p. 31) was the next to use *Pachyrhynchus* in birds. It is probable that Spix had in mind Wagler's (1822) name, but the authorship of the name was not given by him, and both ornithologists and compilers of nomenclators (e.g. Neave, 1940, p. 515) usually considered that Spix had independently established a homonym. His seven included species were: *Pachyrhynchus variegatus* Spix, 1825, unidentifiable fide Hellmayr (1929, p. 179, footnote), *Pachyrhynchus cajanus* Spix, 1825 = *Lanius cayana* Linnaeus, 1766, *Pachyrhynchus semifasciatus* Spix, 1825, *Pachyrhynchus cuvierii* (Swainson, 1821) = *Tityra viridis* Vieillot, 1816, *Pachyrhynchus niger* Spix, 1825 = *Pachyramphus polychopterus nigriventris* Sclater, 1857, *Pachyrhynchus cinerascens* Spix, 1825 = *Lanius validus* Lichtenstein, 1823, and *Pachyrhynchus rufescens* Spix, 1825 = *Muscicapa rufa* Boddaert, 1783.

3. The name *Pachyramphus* appeared first on two plate captions in Gould (1839a, January, pls. XIV and XV): '*Pachyramphus albescens*' (currently *Suiriri suiriri suiriri* (Vieillot, 1818)) and '*Pachyramphus minimus*' (currently *Polystictus pectoralis pectoralis* (Vieillot, 1817)), respectively.

4. Six months later (Gould, 1839b, July, p. 50), corresponding text was published, in which it was explained that *Pachyramphus* was proposed by Gray as a new replacement name (nomen novum) for *Pachyrhynchus* Spix, 1825: 'The generic name of *Pachyrhynchus* Spix, is changed by Mr. G.R. Gray to *Pachyramphus*, as the former word is used in insects' [i.e. for *Pachyrhynchus* Germar, 1824]. It was also made clear that the captions under plates XIV and XV were changed by Gray, who edited the

work during Gould's absence from England; Gould had intended to use the generic name *Pachyrhynchus*.

5. Gray (1840, p. 31) designated '*P. cuvieri* Swainson' (i.e. *Psaris cuvierii* Swainson, 1821 (pl. 32, and text) = *Pachyramphus viridis* (Vieillot, 1816)) as the type species, and this designation applies to *Pachyrhynchus* Spix, 1825, and to *Pachyramphus* G.R. Gray in Gould, 1839 (Article 67.8 of the Code). *Psaris cuvierii* Swainson, 1821 is a junior synonym of *Tityra viridis* Vieillot, 1816. In all probability the synonymy was established by G.R. Gray (1869, p. 368).

6. The name *Pachyramphus* relates to a group of some 16 species of cotinga known as becards, with a widespread distribution throughout Central and South America; *Pachyramphus viridis*, the valid name of the type species, is the green-backed becard from northern South America. Usage of *Pachyramphus* G.R. Gray, both historic and recent, is demonstrated by the following publications: Bonaparte (1850, p. 180), Sclater (1862, p. 240), Sclater (1888, p. 337), Salvin & Godman (1890, p. 124), Brabourne & Chubb (1912, p. 315), Hellmayr (1929, p. 163), Pinto (1944, p. 30), Wetmore (1972, pp. 273–286), Peterson & Chalif (1973, p. 138), Ridgely (1976, pp. 224–226), Wolters (1977, p. 170), Snow (1979, p. 229), Sibley & Monroe (1990, p. 368), Sick (1993, p. 484), Ridgely & Tudor (1994, p. 676), A.O.U. (1998, p. 417), Rodner, Lentino & Restall (2000, p. 83) and Dickinson (2003, p. 344). Ornithologists have generally credited the name to G.R. Gray, 1840, while nomenclators (Sherborn, 1929, p. 4675; Schulze et al., 1933, p. 2441; Neave, 1940, p. 515) give the authorship of G.R. Gray in Gould (1839b, p. 50), and, until Steinheimer et al. (2006, p. 185), nobody realised the potential for it to be associated with the plate captions in Gould, 1839a.

7. If *Pachyramphus* were to be accepted from its first publication in the plate captions (Gould, 1839a), the name would be ineligible as a new replacement name (nomen novum), as the only originally included species would be *Pachyramphus albescens* Gould and *Pachyramphus minimus* Gould, designation of either of which as type species would render *Pachyramphus* an unused senior synonym of either *Suiriri* d'Orbigny, 1840 or *Polystictus* Reichenbach, 1850, and it would be necessary to change the current genus name *Pachyramphus*. To promote stability and avoid confusion, it is proposed to suppress the name *Pachyramphus* Gould, 1839a (January).

8. This application is a direct result of the withdrawal of Case 3347 (BZN 63: 194–196; 64: 270), dealing primarily with the homonymy of *Pachyrhynchus* Wagler, 1822, the suppression of which (Opinion 928, August 1970, BZN 27: 93–94) had been overlooked by the authors of that case.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress *Pachyramphus* Gould, 1839a (January) for the purposes of both the Principle of Priority and the Principle of Homonymy and all its uses before G.R. Gray in Gould, 1839b (July);
- (2) to place on the Official List of Generic Names in Zoology the name *Pachyramphus* G.R. Gray in Gould, 1839 (gender: masculine), type species by subsequent designation by G.R. Gray, 1840 *Psaris cuvierii* Swainson, 1821, a junior synonym of *Tityra viridis* Vieillot, 1816;
- (3) to place on the Official List of Specific Names in Zoology the name *viridis* Vieillot, 1816, as published in the binomen *Tityra viridis* (senior synonym

of *Psaris cuvierii* Swainson, 1821, specific name of the type species of *Pachyramphus* G.R. Gray in Gould, 1839);

- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Pachyramphus* Gould, 1839 (January), as suppressed in (1) above.

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Acknowledgement of receipt of this application was published in BZN **65**: 82.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Comment on the proposed precedence of *Bagauda* Bergroth, 1903 (Insecta, Heteroptera, REDUVIIDAE) over *Pleias* Kirkaldy, 1901

(Case 3435; see BZN 65: 93–96)

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I support the proposed conservation of the name *Bagauda* Bergroth, 1903 over *Pleias* Kirkaldy, 1901. I agree with Rédei (BZN 65: 94) that adherence to the principle of priority in this case would require many new combinations for species currently contained in *Bagauda* and such an action would not help the stability of nomenclature in EMESINAE. Furthermore, as Rédei documented, the name *Bagauda* has been extensively used in recent literature, unlike its senior synonym *Pleias*.

Comment on the proposed conservation of usage of *Drosophila* Fallén, 1823 (Insecta, Diptera)

(Case 3407; see BZN 64: 238–242, 65: 55–56; 137–149)

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Our application regarding designation of *Drosophila melanogaster* as the type species of the genus *Drosophila* (van der Linde et al., 2007) was expected to raise controversy even before it was published, and the variety of comments received in the first two issues of this bulletin in 2008 bears this expectation out (see Comments in BZN 65(1–3)). Seven out of nine comments oppose our application, each for its own unique set of reasons, whereas several of them agree with other parts of our proposal.

The mission of the ICZN is ‘achieving stability and sense in the scientific naming of animals’ (http://www.iczn.org/Mission_vision.htm). If stability is intended in a narrow sense, focused solely on taxonomy (cf. Thomspen et al., 2008) our application should be rejected at once, as changes in genus names are normal occurrences for taxonomists, and such changes will not lead to instability in the strict taxonomic sense (cf. McEvey et al., 2008; BZN 65: 147–150), but even though taxonomy and nomenclature are separate and unique fields, they are not isolated on their own islands, separated from biology at large (http://www.iczn.org/What_we_do.htm). Our proposed change of the type species to *Drosophila melanogaster* is intended to avoid large-scale confusion in the field at large about this, the most important model species in all of biology (cf. Polaszek, 2008; BZN 65: 55). Our application therefore raises the crucial underlying question of whether stability should be preserved in its narrow sense (the field of taxonomy) or in a wider sense (the field of biology).

Unfortunately, several authors indicate that they feel we ask for an endorsement of a particular classification and classification paradigm (Gaimari, 2008; BZN 65: 146–147; McEvey et al., 2008; BZN 65: 147–150; O’Grady et al., 2008; BZN 65: 141–144; Štys, 2008; BZN 65: 144–145; Thompson et al., 2008; BZN 65: 140–141). We wish to dispel that notion explicitly here. In our application, we presented our taxonomic and phylogenetic thought merely as one hypothesis for taxonomic revision of the large genus *Drosophila*, in order to illustrate the nomenclatural problem related to *Drosophila melanogaster*. The name *Drosophila melanogaster* can only be retained if the current paraphyletic situation remains unchanged or if the genera included in the lineage of the genus *Drosophila* are downgraded to subgenera. All other proposals, including ours, must address the desirability of the name change of *Drosophila melanogaster* to *Sophophora melanogaster*.

Although our wording led several readers to believe that we believed our treatment to be the definitive and only way to solve the problem, this was not at all our intention. McEvey et al. (2008) correctly understood what we meant to say: ‘We acknowledge that there is a range of views about how to deal with the various groups of species in *Drosophila* but we feel that there is still much work to be done before the numerous species can be correctly reassigned. We feel that this can proceed more freely, with less constraint, if *melanogaster* is the type of *Drosophila*.’ We agree completely with the argument that taxonomic thoughts and actions should be free from nomenclature (O’Grady et al., 2008; Štys, 2008; Thompson et al., 2008). In the case of the genus *Drosophila*, however, the problem of ‘*Sophophora melanogaster*’ will constrain taxonomic thought (the classification system) to a greater or lesser extent. Our application, if accepted, will release taxonomists from this constraint.

Thompson et al. (2008) refer to *Stegomyia aegypti* as an example for why the application should be rejected, arguing that it is an identical situation in which a new name for a widely studied species did not cause nomenclatural instability. That is true in the narrow sense for the field of taxonomy but not for the field of biology at large.

The new name has not been accepted by the community at large and most recent (2007–2008) publications found in ISI's Web of Knowledge or Google Scholar, although they sometimes use *Aedes (Stegomyia) aegypti*, most frequently use just *Aedes aegypti*, the old name. After the proposed revision by Reinert and coworkers (2004), the editorial boards of the Journal of Medical Entomology, Annals of Tropical Medicine and Parasitology, Emerging Infectious Diseases, Journal of the American Mosquito Control Association, Journal of Vector Ecology, Medical and Veterinary Entomology, Transactions of the Royal Society of Tropical Medicine and Hygiene, Vector Borne and Zoonotic Diseases, and PROMED (Anonymous, 2005; Higgs, 2005; Weaver, 2005) rejected the proposed revision.

In the case of *Drosophila melanogaster*, if the biology community at large accepts the change of its generic name from *Drosophila* to *Sophophora*, as Prigent (2008; BZN 65: 137–140) and Thompson et al. (2008) argue that it will, we would have no need to ask for the plenary power of the Commission to designate *D. melanogaster* as the type species of *Drosophila*, but extensive discussions with many *Drosophila* researchers indicate that a name change is likely to be ignored by many researchers not involved in the taxonomy of this genus. If it is, the result will be a discrepancy between drosophilid taxonomists and the other *Drosophila* researchers, leading to confusion and instability similar to that surrounding *Stegomyia aegypti* within the wider range of the biological sciences. With regard to this point, several others (McEvey et al., 2008; O'Grady et al., 2008; Polaszek, 2008; Štys, 2008) agree with us that the binomen *Drosophila melanogaster* should be preserved to prevent this large-scale confusion.

If the Commission rules in support of our application, the only taxonomic action that will automatically take place is synonymizing of *Sophophora* Sturtevant with *Drosophila* Fallén. This action produces a large, paraphyletic subgenus *Drosophila* revised, which includes the species presently belonging to the subgenera *Drosophila* and *Sophophora*, while the generic name of the species, *Drosophila*, remains unchanged. In this situation, taxonomists are free to propose any hypotheses (classification systems) they choose, but if the Commission rules against our application, taxonomic revision of the genus *Drosophila* is effectively prevented unless the community at large accepts *Sophophora melanogaster*, as suggested by Yassin (2008; BZN 65: 55–56), Prigent (2008; BZN 65: 137–140), and Thompson et al. (2008). Proposed hypotheses should be left to evaluation by the community of biology at large, and more acceptable ones will gradually be selected on the basis of their scientific evidence.

In summary, this case is unique in many ways, because the subject of the application is the most frequently used model system in science (aside from humans), to the point that the name *Drosophila* has become synonymous for many with *Drosophila melanogaster*. The legacy of this species is documented in over 40,000 scientific articles (*Web of Science* search) and used in many more places (Polaszek, 2008). To avoid large-scale instability for biology at large, we have proposed that *Drosophila melanogaster* be designated as the new type species for the genus before any revision of the genus is carried out. The need to revise the genus is something most drosophilid taxonomy and phylogeny researchers agree on (van der Linde et al., 2007; McEvey et al., 2008; O'Grady et al., 2008; Prigent, 2008; Yassin, 2008), but they disagree about when and how such a revision should be carried out. The

discussion of how to revise the genus is outside the scope of the Commission, however. We therefore request that the Commission accepts our application to preserve the name *Drosophila melanogaster* in order to avoid large-scale confusion in the biology community at large.

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Comment on the proposed precedence of the generic name *Ataenius* Harold, 1867 over *Aphodinus* Motschulsky, 1862 (Insecta, Coleoptera) (Case 3377; see BZN **64**: 39–42)

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We are writing in support of the application by Howden & Smetana to give precedence to the generic name *Ataenius* Harold, 1867 over *Aphodinus* Motschulsky, 1862, whenever they are considered synonyms.

We have to point out, however, that the name *Ataenius* Harold, 1867 (type species *Ataenius scutellaris* Harold, 1867 by subsequent designation by Chapin, 1940, p. 12 and not Cartwright, 1974 as incorrectly indicated in the application) is also threatened by *Auperia* Jacquelin du Val, 1857 (type species *Scarabaeus stercorator* Fabricius, 1775 by subsequent designation by Dellacasa, 1988). The lectotype of *Scarabaeus stercorator*, designated by Landin, 1956, is in the Banks collection, at the Natural History Museum, London.

Jacquelin du Val (1857, p. 51) proposed *Auperia* as a replacement name for *Euparia* Erichson, 1847. He wrote: ‘Este género fué creado por Erickson á expensas de los Aphodius. Como Lepelletier y Serville han empleado el nombre de Euparia para un género de Lamellicornes, y Schonherr él de Euparius para un género de curculionites, he creído oportuno cambiar el nombre de Euparia dado por Erickson en él de Auperia, su anagrama.’ [This genus was created by Erickson as a replacement for *Aphodius*. As Lepelletier & Serville have used the name *Euparia* for a genus of Lamellicornes and Schonherr has used *Euparius* for a genus of curculionids, I thought it appropriate to replace Erickson’s name *Euparia* with its anagram, *Auperia*]. Here ‘Erickson’ is clearly a *lapsus* for ‘Erichson’. Erichson (1847) had

included three species in *Euparia*: *Scarabaeus stercorator* Fabricius, 1775 (cited as ‘Aph. stercoratori F.’) and the two new species *Euparia atramentaria* and *Euparia catenulata*. These species are currently included in the genus *Ataenius* Harold, 1867.

The generic name *Auperia* was used by Chevrolat (1864) for *Scarabaeus stercorator* Fabricius, 1775 and the four new species *Auperia denominata*, *A. rhyticephala*, *A. sulcatula*, and *Auperia* (sic) *terminalis*. ‘*Auperia*’ here is a lapsus for *Auperia*, as is evident from the ‘Liste, dans l’ordre méthodique, des genres et des espèces’ (Chevrolat, 1864, p. 418) where all four species are listed in combination with *Auperia*. Stebnicka (2002) designated *A. denominata* as type species of *Auperia* Chevrolat, 1864. The other three species described by Chevrolat are currently included in the genus *Ataenius* Harold, 1867.

Auperia Chevrolat, 1864 is a junior homonym of *Auperia* Jacquelin du Val, 1857 and is therefore permanently invalid. However, the name *Phalangochaeta* Martínez, 1952 (type species *Ataenius angusticollis* Schmidt, 1909, by original designation) is available for this genus.

Accordingly, in addition to the requests in the application by Howden & Smetana, the International Commission on Zoological Nomenclature is asked:

- (1) to use its plenary power to give the name *Ataenius* Harold, 1867 precedence over the name *Auperia* Jacquelin du Val, 1857, whenever the two are considered to be synonyms.
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Auperia* Jacquelin du Val, 1857 (gender: feminine), type species by subsequent designation by Dellacasa (1988) *Scarabaeus stercorator* Fabricius, 1775, with the endorsement that it is not to be given priority over the name *Ataenius* Harold, 1867 whenever the two are considered to be synonyms.
 - (b) *Phalangochaeta* Martínez, 1952 (gender: feminine), type species by original designation *Ataenius angusticollis* Schmidt, 1909.
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *angusticollis* Schmidt, 1909, as published in the binomen *Ataenius angusticollis* (specific name of the type species of *Phalangochaeta* Martínez, 1952).
 - (b) *stercorator* Fabricius, 1775, as published in the binomen *Scarabaeus stercorator* (specific name of the type species of *Auperia* Jacquelin du Val, 1857).
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Auperia* Chevrolat, 1864, a junior homonym of *Auperia* Jacquelin du Val, 1857.

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Comment on the proposed emendation of spelling of CORYSTIDAE Foster & Philip, 1978 (Echinodermata, Echinoidea) to remove homonymy with CORYSTIDAE Samouelle, 1819 (Crustacea, Brachyura)
(Case 3419; see BZN **65**: 114–118)

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My colleagues, René H.B. Fraaije, Barry W.M. van Bakel (both Oertijdmuseum De Groene Poort, Boxtel, the Netherlands), Pedro Artal (Museo Geológico del Seminario de Barcelona, Spain), Danièle Guinot (Muséum national d'Histoire naturelle, Paris) and I agree wholeheartedly with Christopher Boyko's application (Case 3419) to emend the echinoid family name to CORYSTUSIDAE, so as to remove homonymy with the decapod family CORYSTIDAE. In fact, we had noted this homonymy ourselves recently and were about to submit an application.

Perhaps it should be added that the decapod genus *Corystes* is monospecific, and that the type species *C. cassivelaunus* is a North Sea and Mediterranean form, with a fossil record going back to the Pliocene, at least in the North Sea Basin (van Bakel et al., in press).

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Comment on the proposed suppression of *Gobius lagocephalus* Pallas, 1770 (Osteichthyes, Teleostei, GOBIIDAE)
(Case 3383; see BZN **64**: 103–107, **65**: 57–60, 150–151)

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A suppression of *Gobius lagocephalus* Pallas, 1770 is unnecessary and would cause instability in the nomenclature of the genus *Sicyopterus*. In accordance with the

preamble of the Code, and for the sake of stability, I would like to express my disagreement with the proposed suppression of the name *Gobius lagocephalus* Pallas, 1770 and my agreement with Kottelat, Larson, Watson & Keith's (BZN 65: 57–60) proposal to retain the present usage.

Comments on the proposed conservation of *Buettneria* Case, 1922 (Amphibia)
(Case 3420; see BZN 64: 252–254, 65: 60–62, 217–219)

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I endorse Lucas et al.'s (2007) application to conserve the long- and commonly used name of the Late Triassic temnospondyl *Buettneria* Case, 1922, in spite of objections raised by Hausdorf (2008, BZN 65(1): 61–62). Abandoning this widely used name in favor of the essentially unused homonyms *Buettneria* Simroth, 1888 and *Buettneria* (= *Büttneria*) Karsch, 1889 would destabilise zoological nomenclature.

Hausdorf (2008) is correct that Simroth (1888) did propose the name *Buettneria* for a urocyclid gastropod before Karsch (1889) proposed *Büttneria* (= *Buettneria*) for an orthopteran insect. However, Simroth did not describe the taxon until later (Simroth, 1890), and thus his proposal of the replacement name *Buettnerella* Simroth (1910) can be viewed as an implicit understanding that Karsch described the orthopteran prior to Simroth's description of the gastropod. Even if *Buettneria* Simroth is considered senior to *Buettneria* Karsch, Simroth's name only appeared in compendia and faunal lists (Cockerell, 1893, Heynemann, 1906, Thiele, 1931, Zilch, 1959) until the work of Van Goethem (1975, 1977) and Schileyko (2002), thereby failing to meet the criteria to determine usage set forth in Article 23.9. The online Zoological Record database suggests that Mollendorf (1890) also published the name *Buettneria leuckharti*, but this is apparently an error in the database, as Mollendorf (1890), while covering similar taxa, makes no mention of *Buettneria*, nor does he cite Simroth. The following paragraphs demonstrate the near-total lack of usage of Simroth's name and the problematic nature of discriminating between Simroth's and Karsch's.

Simroth (1888, p. 87) clearly was the first to establish the generic name *Buettneria* and the species *B. leuckharti* and even provided a diagnosis ('Wie die vorige, aber eine mit dem Penis verbundeneen Pfeildrüse'). However, he did not designate a type until later. (Simroth, 1890) when he also used the abbreviations n. g. and n. sp. to designate *Buettneria leuckharti* as a new taxon. He provided an etymology for both the generic and specific names, indicated that there was a type specimen and illustrated it (Simroth, 1890, pl. 3, figs. 3, 7, 16). However, between his initial use of the name (Simroth, 1888) and more formal description (Simroth, 1890), Karsch had described the orthopteran *Büttneria*, as documented by Mueller (2006) and Lucas et al. (2007). Thus, in 1910 Simroth appeared to concede that *Buettneria* was preoccupied and designated the new name *Buettnerella* (Simroth, 1910, p. 611), which he used for that taxon in the few other instances it appeared in that publication and was subsequently used in a faunal list by Pilsbry (1919, p. 300).

The only gastropod work to address Simroth's concept of *Buettneria* is relatively recent. Van Goethem (1975) named several taxa, including a new species, *B.*

garambaensis, prior to a more thorough treatment of the subfamily UROCYCLINAE (Van Goethem (1977). Since then only Schileyko (2002) has reviewed the genus, naming the tribe BUETTNERIINI Schileyko to encompass the genera *Elisolinx* Cockerell, *Nuphus* Van Goethem, *Bukobia*, Simroth, and *Buettneria* Simroth. This is the entire taxonomic history of *Buettneria* Simroth, demonstrating that the name has only been used in three contributions to taxonomic literature (Van Goethem, 1975, 1977; Schileyko, 2002). All other uses are faunal lists, maps, and compendia, and the only taxonomic work between Simroth (1890) and Van Goethem (1975) is Simroth (1910), in which he expressly uses the name *Buettnerella*. Thus *Buettneria* Simroth fails to satisfy the criteria of usage set forth in Article 23.9.

In contrast to the occasional listing of either the urocyclid gastropod or the orthopteran insect, Lucas et al. (2007) documented more than 75 usages of *Buettneria* as the name for a Triassic temnospondyl in the literature. I have found a further 25 usages of *Buettneria* in the same context and this list has also been lodged with the ICZN Secretariat. In addition to the primary literature and textbooks cited by Lucas et al. (2007), the holotype of *Buettneria* is commonly used in phylogenetic analyses of metoposaurid ingroup relationships (e.g. Davidow-Henry, 1989; Hunt, 1989, 1993) as well as the phylogenetic position of metoposaurs within Temnospondyli generally (Yates & Warren, 2000). Because of the abundant material of *Buettneria* known from multiple bonebeds in the American Southwest (Case, 1932; Romer, 1939; Colbert & Imbrie, 1956) the name is entrenched not only in the literature of Late Triassic amphibians, including major systematic treatments (e.g. Hunt, 1993; Sulej, 2007), but it is and continues to be the standard name applied to Late Triassic metoposaurid temnospondyls for comparisons with other taxa (e.g. Pawley & Warren, 2005, 2006; Pawley, 2007; Ruta et al., 2007; Schoch, 2008). A list of Lucas et al. (2007, pers. comm.) and other sources shows that the name *Buettneria* Case has been used throughout its history, and with increasing regularity, from three references in the 1920s to more than 29 in the present decade. Indeed, *Buettneria* Case was used by other workers in the 1920s (Branson & Mehl, 1928, 1929) and, with 27 references from 1922 to 1972, never went more than five years without at least one mention in the scientific literature. Importantly, not only are four of the references cited in this paragraph in addition to the list provided by Lucas et al., (2007), but most of these authors refer to the temnospondyl throughout their papers (e.g. Sulej, 2007). Thus, not only is the name entrenched in the literature, but also individual citations utilise the name repeatedly, so that the total number of usages in the literature is vastly larger than the nearly 100 references tabulated by Lucas et al. (2007) and myself. This shows that the usage of *Buettneria* to describe a temnospondyl amphibian is not only common and entrenched in the literature, but that it continues to be used at an ever-increasing rate.

Indeed, the instructions to authors in the Bulletin of Zoological Nomenclature request that, where possible, ten or more reasonably recent references should be given illustrating the usage of names that are to be conserved or given precedence over older names. Lucas et al. (2007) and the references I provide here include at least thirty-five systematic references from the past decade alone.

Finally, although museum exhibits are beyond the purview of the Code, I note that exhibits of *Buettneria* as a temnospondyl amphibian are prominent at the American Museum of Natural History (New York), the United States National Museum

(Washington), University of Michigan Museum of Paleontology (Ann Arbor), the State Museum of Pennsylvania (Harrisburg), the Texas Memorial Museum (Austin), the New Mexico Museum of Natural History and Science (Albuquerque), and the Mesa Southwest Museum (Mesa, Arizona), among others. The usage of the name *Buettneria* in these temnospondyl exhibits clearly reflects curators' awareness of this term in the paleontological literature.

Thus, to best serve the stability and universality of zoological nomenclature, the generic names *Buettneria* Simroth 1888 and *Buettneria* Karsch, 1889 should be suppressed and the generic name *Buettneria* Case 1922 should be conserved. The generic name *Buettnerella* Simroth 1910 should be applied to the molluscan species *B. leuckharti* Simroth and *B. garambaensis* Van Goethem. The junior subjective synonym *Stenacropteryx* Karsch 1896 remains available for the insect *Buettneria* Karsch 1889.

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I am writing to further elaborate my previous opinion to conserve the Late Triassic metoposaurid genus *Buettneria* Case, 1922 in the interest of taxonomic stability. I reject the arguments put forth by Mueller (2008) and concur with Lucas et al. (2008) that the African gastropod generic name *Buettneria* Simroth, 1888 is a long-standing nomen oblitum. In the interest of retaining stability in nomenclature, I also support the recent petition of Lucas et al. (2008) to suppress the name *Buettneria* Simroth, 1888 because of the availability of the name *Buettnerella* Simroth, 1910.

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The comment of Mueller (BZN **65**: 217) that the name *Buettneria* Case, 1922 has repeatedly been synonymised with other metoposaurid genus names in the past renders the justification of the suppression of the snail name *Buettneria* Simroth, 1888 in favour of the junior homonym even more doubtful. *Buettneria* Case, 1922 can be replaced by *Koskinonodon* Branson and Mehl, 1929, as proposed by Mueller, without threatening the stability of nomenclature, even though *Buettneria* Case, 1922 has been used more often than *Buettneria* Simroth, 1888. The rating of *Buettneria* Simroth, 1888 as a 'virtual nomen oblitum' by Lucas et al. (BZN **65**: 218) is unwarranted. The term 'nomen oblitum' is clearly defined in Article 23.9 of the Code. *Buettneria* Simroth, 1888 has been in general use since Van Goethem (1975, 1976, 1977a, b) and, thus, does not fulfil the conditions of Article 23.9.1.1. Although Lucas et al. cited Schileyko (2002), they did not mention another undesirable consequence

of suppressing the name *Buettneria* Simroth, 1888. Schileyko (2002) established the family-group name BUETTNERIINI based on *Buettneria* Simroth, 1888. If the Commission decided to suppress *Buettneria* Simroth, 1888 the name BUETTNERIINI Schileyko, 2002 would also become invalid under Article 39 of the Code and would have to be replaced by a new name, if considered necessary.

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Comment on the proposed conservation of usage of *Archaeopteryx lithographica* von Meyer, 1861 (Aves) by designation of a neotype

Case 3390; see BZN **64**(3): 182–184, **64**(4): 261–262

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I agree with the objective of the applicants and the commentators (Bock & Bühler (BZN **63**(3): 182–184) and Barrett & Milner (BZN **63**(4): 261–262) to conserve the name *Archaeopteryx lithographica* in its accustomed sense, i.e. as typified by the 'London specimen' (BMNH 37001) for all the reasons stated by these authors. However, insufficient consideration has been given to the questions 1) in which publication the name *Archaeopteryx lithographica* was actually made available under the Code, and 2) which specimen(s) constitute the type series.

The nomenclatural history of the name *Archaeopteryx lithographica* has been described by Swinton (1960) in this journal, but some points are here restated as his account contains some errors and omissions. As to the present application, the authors take it as given that the holotype is the fossil feather described by von Meyer (1861a, 1862a, 1862b) and the name was made available by von Meyer, 1861b. As we shall see this view is not necessarily correct on both points. The relevant publications are treated in chronological order.

Meyer, 1861a (p. 561) (post 15.8.1861): In a letter dated 15 August 1861 to H.G. Bronn, one of the editors of '*Neues Jahrbuch für Geologie etc.*', and published in part 5 of the 1861 volume, von Meyer described a fossil feather from the Late Jurassic lithographic limestone of Solenhofen [modern spelling: Solnhofen], southern Germany, but did not give it a name.

Meyer, 1861b (pp. 678–679) (post 10.10.1861): In another letter to Bronn, dated 30 Sept 1861 and published in part 6 of the 1861 volume, von Meyer wrote the following, here quoted in translation from the German original text. This text is regarded by most authors as the original reference to the name *Archaeopteryx lithographica*: 'As a supplement to my letter from the 15th of last month I can now tell you that I have

studied the feather from Solenhofen from all angles, and thereby I arrived at the conclusion that it is a true fossil from the lithographic slate and that it agrees completely with a bird's feather. At the same time I received news from Obergerichtsrat [a rank in the judiciary] Witte that an almost complete skeleton of an animal covered in feathers had been found in the lithographic slate. It shows several deviations from our living birds. The feather which I studied I will publish with an exact illustration. For the denomination of the animal I consider the term *Archaeopteryx lithographica* as appropriate'. From this text it should be noted that 1) the skeleton find (the later BMNH specimen no. 37001) is not described, diagnosed or characterised by even a single word, nor is an indication to such characterisation given and 2) von Meyer refers only the feather to a species of fossil bird, but the skeleton merely to 'an animal covered in feathers'. It is ambiguous whether the animal von Meyer referred to is the animal which produced the feather he studied, or to the animal which produced the skeleton specimen, and whether he considered them conspecific. Thus, von Meyer's last sentence can be interpreted in three different ways, with resulting different conclusions as to the availability of the name, and the constituents of the type series:

Alternative (1): If von Meyer's last sentence meant: 'For the denomination of the animal species which produced my feather (and to which the skeleton find – which I have not seen – may or may not belong) . . .', the feather would be the only definitely included material and hence the holotype of the nominal species *Archaeopteryx lithographica*; this name would have been made available in this publication, as von Meyer references his earlier (1861a) description of the feather.

Alternative (2): 'For the denomination of the animal represented by the skeleton specimen (to which species my feather belongs), . . .', then the feather and the skeleton constitute the type series, but only the feather is described. It is then questionable whether the name *Archaeopteryx lithographica* was made available as the essential part of the type series was not characterised.

As a third possibility von Meyer's text can be interpreted as 'For the denomination of the animal represented by the skeleton specimen (to which species my feather may or may not belong), . . .' In this case the feather cannot be part of the type series as being only questionably included; and as the only included item, the skeleton, was not described, the name *Archaeopteryx lithographica* would be a nomen nudum in this publication.

Meyer's ambiguity stems doubtless from the fact that he had not seen the skeleton and was thus circumspect about any statement about it. Furthermore, as an experienced vertebrate palaeontologist and an authority in his time, it is a safe assumption that he considered it inappropriate to base a new species of bird on the description of a single feather. Thus, if von Meyer's likely intentions are guiding the nomenclatural interpretation of his paper, a fourth interpretation is possible: the nominal species *Archaeopteryx lithographica* in von Meyer 1861b is not based on the feather; von Meyer expected that either the skeleton already found or a find yet to be made would eventually be matched with his feather, and he just preempted the naming with what he considered an appropriate name which is nonetheless a nomen nudum at this stage.

Anonymous, 1861–1862 (late 1861, or possibly early 1862): While letters to the editors of *Neues Jahrbuch* were published without a title, the editors made up titles

for the index of the volume. In this index the name *Archaeopteryx lithographica* is unequivocally linked to the feather ('*Archaeopterix lithographica* (bird's feather) and *Pterodactylus* from Solnhofen'). Thus, if this name is interpreted as a nomen nudum in von Meyer, 1861b, as in the alternative interpretations (3) and (4) given above, it would become available from this caption. The feather would then be part of the type series; whether or not the skeleton specimen formed the other part of the type series, will depend on the interpretation of von Meyer's text, alternatives (1) and (2). The authorship would still go to von Meyer, but may need to be quoted as von Meyer in Anonymous, 1861'. It is clearly undesirable to have names made available in this way. Further, it would remain uncertain whether this index were actually published before the paper of Wagner, 1862a (see below).

Wagner, 1862a: A. Wagner '1861' [20 January 1862] (146–154) provided many anatomical details about the skeleton specimen, which had been related to him by Witte and an unnamed expert. He discussed the affinities of this specimen and concluded it to be a reptile. The name *Griphosaurus*, proposed by Wagner for this skeleton, fulfills the requirement of being accompanied by a description, to be available. Wagner quoted only von Meyer's first letter (1861a) in his presentation to the Bavarian Academy of Sciences on 9 November 1861; the subsequent issue of *Neues Jahrbuch* with von Meyer's second letter (1861b) had certainly not been published at this time, because this issue contains letters dated up to 10 October 1861. Wagner's paper must have been published after 9 November 1861; from external sources a date of 20 January 1862 has been proposed (Swinton 1960, p. 225), therefore the date of the name should be quoted in angular brackets. A translation into English of Wagner's paper appeared shortly afterwards (Wagner, 1862b; April 1862). The name *Griphosaurus* Wagner, [1862a] is the earliest genus-group name which is unequivocally available for the taxon known as *Archaeopteryx*.

H. von Meyer, 1862a (April 1862) (pp. 54–56, pl. 8 fig. 3) described and figured the fossil feather, and discussed the significance of this find. In this context he mentions at the end of the article the skeleton find and describes its anatomical characteristics according to communications received from Witte and Oppel, i.e. he still had not seen the skeleton himself. The name *Archaeopteryx lithographica* is only mentioned in the title and at the end of the paper. The last two sentences of this paper read, translated from German: 'Already from the simple middle foot can be concluded that this animal does not belong to the Pterodactyls, and the formation of the tail opposes the notion which we have of birds; and yet the feathers cannot be distinguished from those of birds. The fossil feather presented by me may come from a similar animal, for which I have chosen the denomination *Archaeopteryx lithographica* (Jahrb. für Mineral., 1861, p. 679)'. A translation into English was published shortly afterwards (von Meyer, 1862b, May 1862). Thus von Meyer confirmed that he included the feather in the nominal species *Archaeopteryx lithographica*; whether the skeleton specimen was included depends on the interpretation of the term 'animal': it could mean another individual of the same species to which the skeleton belonged, in which case the skeleton was included in the nominal species; or it could mean a species (as yet undiscovered) similar to the species to which the skeleton belonged. Thus the ambiguity in von Meyer's taxonomic concept remains.

In order to conserve the name *Archaeopteryx lithographica* in its accustomed sense by designating the London specimen as the type specimen, an additional action is

required by the Commission, viz. to remove the ambiguities inherent in von Meyer's letter (1861b), concerning the availability of the name. The International Commission on Zoological Nomenclature is accordingly asked to use its plenary power to rule that both the generic and specific names *Archaeopteryx* and *lithographica* have been made available by von Meyer, 1861b.

Below are the correct references for the names *Archaeopteryx*, *Griphosaurus*, *Archaeopteryx lithographica*, *Griphosaurus problematicus* and *Griphornis longicaudatus*:

- Archaeopteryx* von Meyer, 1861, *Neues Jahrbuch für Mineralogie, Geognosie, Geologie und Petrefakten-Kunde*, **1861**(6), pp. 678–679 [not p. 578].
- Griphosaurus* Wagner, [1862], *Sitzungsberichte der Königlichen Bayerischen Akademie der Wissenschaften zu München, Mathematisch-naturwissenschaftliche Klasse*, **2**(2): 153.
- lithographica* von Meyer, 1861, as published in the binomen *Archaeopteryx lithographica*, *Neues Jahrbuch für Mineralogie, Geognosie, Geologie und Petrefakten-Kunde*, **1861**(6), pp. 678–679 [not p. 578].
- problematicus* H. Woodward, 1862, as published in the binomen *Griphosaurus problematicus*, *Intellectual Observer*, **2** (December 1862): plate legend [not p. 317].
- longicaudatus* H. Woodward, 1862, as published in the binomen *Griphornis longicaudatus*, *Intellectual Observer*, **2** (December 1862), p. 317, plate legend [p. 317 was omitted].

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Corrigendum

Please note that the correct spelling of the generic name conserved for a genus of doradid fish is *Platydoras*, rather than *Polydorus* or *Platydorus* as stated in the Abstract and Keywords of Opinion 2209 (Case 3382) (BZN **65**: 237).

OPINION 2211 (Case 3360)**The ichnogenus *Coprinisphaera* Sauer, 1955 (Ichnotaxa, COPRINISPHAERIDAE): generic name given precedence over *Fontanai* Roselli, 1939**

Abstract. The name *Coprinisphaera* Sauer, 1955, for an ichnogenus attributed to dung-beetle brood balls (ichnofamily COPRINISPHAERIDAE), was threatened by a rarely used senior subjective synonym *Fontanai* Roselli, 1939. The universally accepted name *Coprinisphaera* has been conserved by giving it precedence over *Fontanai*. The name *Fontanai* was not suppressed as ichnotaxonomy is at a stage of structural typology and the name should remain available for future refined work on ichnotaxa.

Keywords. Nomenclature; taxonomy; ichnofossils; COPRINISPHAERIDAE; *Coprinisphaera*; *Fontanai*; *Coprinisphaera ecuadoriensis*; dung-beetle brood balls; Ecuador; Uruguay; Eocene–Holocene.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *Coprinisphaera* Sauer, 1955 is given precedence over the name *Fontanai* Roselli, 1939, whenever the two are considered to be synonyms.
- (2) The name *Coprinisphaera* Sauer, 1955 (gender: feminine), type ichnospecies by monotypy *Coprinisphaera ecuadoriensis* Sauer, 1955, is hereby placed on the Official List of Generic Names in Zoology, with the endorsement that it is to be given precedence over the name *Fontanai* Roselli, 1939, whenever the two are considered to be synonyms.
- (3) The name *ecuadoriensis* Sauer, 1955, as published in the binomen *Coprinisphaera ecuadoriensis* (specific name of the type ichnospecies of *Coprinisphaera* Sauer, 1955), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3360

An application to conserve the universally accepted name *Coprinisphaera* Sauer, 1955 for an ichnogenus attributed to dung-beetle brood balls (ichnofamily COPRINISPHAERIDAE) was received from J.F. Genise and J.H. Laza (*Conicet, Museo Paleontológico Egidio Feruglio, Chubut, Argentina*) and A.K. Rindsberg (*University of West Alabama, Livingston, Alabama, U.S.A.*) on 20 September 2005. After correspondence the case was published in BZN 63: 243–246 (December 2006). The title, abstract and keywords were published on the Commission's website. A comment with an alternative set of proposals was published in BZN 65: 50–54. The authors of the case agreed with the alternative set of proposals in a comment published in BZN 65: 51.

Decision of the Commission

On 1 June 2008 the members of the Commission were invited to vote on the proposals published in BZN 65: 51. At the close of the voting period on 1 September 2008 the votes were as follows:

Affirmative votes – 16: Alonso-Zarazaga, Bogutskaya, Brothers, Fautin, Grygier, Halliday, Kottelat, Krell, Kullander, Lamas, Lim, Pape, Papp, Rosenberg, van Tol and Zhang.

Negative vote – 1: Bouchet.

Minelli, Ng, Patterson, Pyle and Štys were on leave of absence.

Voting against the proposal, Bouchet said he understood the science behind, and sympathised with the proposals set out by F. Krell (BZN 65: 51). However, he believed that nomenclature should have rules that were as simple as possible. ‘Conditional’ reversal of precedence was a source of instability and thus he rejected it through his vote. When ichnotaxonomy needs another name for dung-beetle brood ball-like structures, Bouchet suggested we make a new one rather than keep *Fontanai* in store (which looked like a specific epithet in genitive). He would have voted for the proposals in BZN 63: 244. Voting for the proposal, Kullander said that the comment (BZN 65: 51) gave a better informed explanation on why the name *Coprinisphaera* deserved to live on. The name *Fontanai* Roselli is not placed on the Official List of Generic Names in Zoology because it should not be used as a valid genus-group name at present.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Coprinisphaera Sauer, 1955, *Boletín del Instituto de Ciencias Naturales del Ecuador*, 1(2): 123. *ecuadoriensis*, *Coprinisphaera*, Sauer, 1955, *Boletín del Instituto de Ciencias Naturales del Ecuador*, 1(2): 123.

OPINION 2212 (Case 3267)***Cherax tenuimanus* Smith, 1912 (Crustacea, Decapoda, PARASTACIDAE): proposed designation of neotype not accepted and usage not conserved**

Abstract. An application to conserve the specific name *Cherax tenuimanus* Smith, 1912 by designation of neotypes for this species and for *Cherax cainii* Austin in Austin & Ryan, 2002, two species of freshwater crayfish or ‘marron’ important in the Australian aquaculture industry, was not approved. Type fixations for *Cherax tenuimanus* Smith, 1912 and *Cherax cainii* Austin in Austin & Ryan, 2002 are maintained.

Keywords. Nomenclature; taxonomy; Crustacea; Decapoda; PARASTACIDAE; *Cherax*; *Cherax tenuimanus*; *Cherax cainii*; freshwater crayfish; marron; aquaculture; Australia.

Ruling

- (1) It is hereby ruled that the type fixations for the following nominal species are maintained:
 - (a) *Cherax tenuimanus* Smith, 1912;
 - (b) *Cherax cainii* Austin in Austin & Ryan, 2002.
- (2) The following names are placed on the Official List of Specific Names in Zoology:
 - (a) *tenuimanus* Smith, 1912, as published in the binomen *Cherax tenuimanus*;
 - (b) *cainii* Austin in Austin & Ryan, 2002, as published in the binomen *Cherax cainii* and as defined by the holotype WAM C 28348 in the Western Australian Museum.

History of Case 3267

An application to conserve the specific name *Cherax tenuimanus* Smith, 1912 for a species of freshwater crayfish or ‘marron’ was received from Brett W. Molony (*Secretariat of the Pacific Community, New Caledonia*), Brian Jones, Craig S. Lawrence and Vicki A. Gouteff (*West Australian Fisheries and Marine Research Laboratories, Australia*) on 27 January 2003. After correspondence the case was published in BZN 63: 231–235 (December 2006). The title, abstract and keywords of the case were published on the Commission’s website. No comments on this case were received.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 233. At the close of voting on 1 December 2007 the majority of Commissioners had voted FOR the Case (12 For, 10 Against), but failed to reach the required two-thirds majority for it to be approved. In this first voting round, Alonso-Zarazaga, voting against the proposals, commented that he could not

see the need for designating a neotype for a species described in 2002 because it did not meet the requirements of the suspected identity of the other species. Alonso-Zarazaga also said that Austin's action was completely in accordance with the Code when he restricted the identity of *C. tenuimanus* to the less distributed species, and that it was simply a matter of getting used to this. He further noted the lack of interest this application had aroused among concerned people. Kottelat, voting for the proposals, commented that the exact type localities, as defined by neotype designations, should have been indicated in the proposal. Rosenberg, voting against the proposals, said that he would have voted for a neotype for *C. tenuimanus* but not for *C. cainii*, but it was not clear to him that split voting was allowed without the options being stated. Furthermore, the type localities of the proposed neotypes were not stated explicitly, but just said to be 'the same localities as the original material', so it would not be easy to verify what the type localities were. As type localities are properties of the type specimens, the label data for the proposed neotypes should have been given. Grygier, voting against the proposals, said that the proposed solution makes more use of the plenary power than is necessary. Instead of switching names between the two nominal taxa they pertain to, and cancelling all the current type designations, he believes that it would be less confusing in the long run if the Commission ratified a designation of the present holotype of *Cherax cainii* as the neotype for *C. tenuimanus* (i.e. a different specimen than that nominated in the Case), and to take no further action. This would preserve current usage of *C. tenuimanus* but *C. cainii* would be an objective junior synonym of *C. tenuimanus* and disappear. Grygier suggested that a new name could be devised for the isolated Margaret River population.

On 1 March 2008 the members of the Commission were invited to vote again on the proposals published in BZN 63: 233. At the close of the voting period on 1 June 2008 the votes were as follows

Affirmative votes – 9: Bouchet, Fautin, Halliday, Kottelat, Lamas, Mawatari, Papp, van Tol and Zhang.

Negative votes – 8: Bogutskaya, Brothers, Grygier, Krell, Kullander, Pape, Rosenberg and Štys.

No vote was received from Lim.

Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Voting against the proposals in the second round, Brothers commented that if, as seemed likely from the case, the 'holotype' of *Cherax tenuimanus* Smith, 1912 had been incorrectly identified and no unambiguous syntype material could be found, then the possibility remained for designation of a suitable neotype. Grygier, voting against the proposals, said his reasoning was unchanged from the previous round of voting. Kullander, voting against the proposals, said that this was a case that could be solved to the satisfaction of the authors without reference to the Commission. Štys, voting against the proposals, said he could not support this application on formal grounds alone. He pointed out that we did not learn the original type locality of *Cherax tenuimanus* Smith, 1912, nor were we told where the proposed neotype of this nominal species labelled WAM C 37199 came from. The same was true for the proposed neotype of *Cherax cainii* Austin, 2002, labelled WAM C 37197. He commented that the Commission should not blindly vote for non-specified symbols.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

tenuimanus, *Cherax*, Smith, 1912, *Proceedings of the Zoological Society of London*, **1912**: 166.
cainii, *Cherax*, Austin in Austin & Ryan, 2002, *Invertebrate Systematics*, **16**: 360.

OPINION 2213 (Case 3387)***Cancer setosus* Fabricius, 1798 (currently *Pseudograpsus setosus*; Crustacea, Decapoda): replacement of a syntype by a neotype approved**

Abstract. The only known syntype of *Cancer setosus* Fabricius, 1798 (currently *Pseudograpsus setosus*) is extremely deteriorated. With this ruling it has been replaced with a neotype. *Cancer setosus* Fabricius, 1798 has been accepted by carcinologists as a senior subjective synonym of *Grapsus penicilliger* Latreille, 1817 and *Pseudograpsus barbatus* H. Milne Edwards, 1853 for 150 years, and as such, it is essential that a recognisable type be available to the scientific community.

Keywords. Nomenclature; taxonomy; *Pseudograpsus setosus*; *Grapsus penicilliger*; *Pseudograpsus barbatus*; neotype; brachyuran crab.

Ruling

- (1) Under the plenary power it is hereby ruled that all type fixations for the nominal species *setosus* Fabricius, 1798, as published in the binomen *Cancer setosus*, are set aside and a male specimen collected from Ambon (RMNH-D-191) and housed in the Nationaal Natuurhistorisch Museum, Leiden is designated as the neotype.
- (2) The name *setosus* Fabricius, 1798, as published in the binomen *Cancer setosus* and as defined by the neotype designated in (1) above, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3387

An application was received from Ngan Kee Ng and Peter K.L. Ng (*National University of Singapore, Republic of Singapore*) on 28 April 2006 to replace the only known, extremely deteriorated syntype of *Cancer setosus* Fabricius, 1798 (currently *Pseudograpsus setosus*) with a neotype. After correspondence the case was published in BZN **64**: 149–154 (September 2007). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 June 2008 the members of the Commission were invited to vote on the proposals published in BZN **64**: 152. At the close of the voting period on 1 September 2008 the votes were as follows:

Affirmative votes – 16: Alonso-Zarazaga, Bogutskaya, Bouchet, Brothers, Fautin, Halliday, Kottelat, Krell, Kullander, Lamas, Lim, Pape, Papp, Rosenberg, van Tol and Zhang.

Negative vote – 1: Grygier.

Minelli, Ng, Patterson, Pyle and Štys were on leave of absence.

Grygier, voting against the proposals, said that the application presented no information documenting extensive use of *setosus*. The mere citation of Ng et al.

(2002) is inadequate for this purpose and in addition, fewer than ten total uses of the name are cited in that work. Furthermore, the proposed neotype is geographically too far removed from the type locality reported by Fabricius. It would perhaps have been better to propose conditional priority reversal when *Cancer setosus* is considered synonymous with *Grapsus penicilliger*, and thus to use the name *Pseudograpsus penicilliger* henceforth as valid for the Indonesia/Taiwan species. Kullander, voting for the proposal, said he fully appreciated that the type specimen seems useless.

Original references

The following is the original reference to the name placed on the Official List by the ruling given in the present Opinion:

setosus, *Cancer*, Fabricius, 1798, *Supplementum entomologiae systematicae*, p. 339.

OPINION 2214 (Case 3366)***Cisseis* Gory & Laporte de Castelnau, 1839 and *Curis* Gory & Laporte de Castelnau, 1838 (Insecta, Coleoptera, BUPRESTIDAE): generic names not conserved**

Abstract. The Commission has ruled that priority is maintained for the name *Diphucrania* Dejean, 1833 and the name *Selagis* Mannerheim, 1837 for two genera of jewel beetles. Proposals to conserve the junior synonym *Cisseis* Gory & Laporte de Castelnau, 1839 of the former name and the junior synonym *Curis* Gory & Laporte de Castelnau, 1838 of the latter name were not approved.

Keywords. Nomenclature; taxonomy; Coleoptera; BUPRESTIDAE; *Cisseis*; *Curis*; *Diphucrania*; *Selagis*; jewel beetles.

Ruling

- (1) It is hereby ruled that the following generic names are not conserved:
 - (a) *Cisseis* Gory & Laporte de Castelnau, 1839;
 - (b) *Curis* Gory & Laporte de Castelnau, 1838.
- (2) No names are placed on the Official Lists or Indexes in this ruling.

History of Case 3366

An application to conserve the generic names *Cisseis* Gory & Laporte de Castelnau, 1839 and *Curis* Gory & Laporte de Castelnau, 1838 for two genera of jewel beetles, by suppressing their respective senior synonyms *Diphucrania* Dejean, 1833 and *Selagis* Mannerheim, 1837, was received from C.L. Bellamy (*California Department of Food & Agriculture, Sacramento, CA, U.S.A.*) on 28 October 2005. After correspondence the case was published in BZN 63: 247–250 (December 2006). The title, abstract and keywords of the case were published on the Commission's website. A comment supporting the application was published in BZN 64: 67.

Decision of the Commission

On 1 September 2007 the members of the Commission were invited to vote on the proposals published in BZN 63: 248. Three Commissioners commented that there are two independent cases (conservation of the name *Cisseis*: (1a) and corresponding statements in (2), (3) and (4), and conservation of *Curis*: (1b) and corresponding statements in (2), (3) and (4)) that should have been voted on separately. Four Commissioners split their votes such that the proposals for conservation of the name *Cisseis*, (1a) and corresponding statements in (2), (3) and (4), received a majority of the votes cast but failed to reach the required two-thirds majority (12 FOR, 10 AGAINST). The application was submitted for a second vote under Bylaw 35. On 1 March 2008 the members of the Commission were invited to vote on the proposals published in BZN 63: 248 (1a), (2a), (3a) and (4a) only.

At the close of the voting period on 1 December 2007 the votes were as follows: *Curis* proposals (1b), (2b), (3b) and (4b)

Affirmative votes – 10: Alonso-Zarazaga, Brothers, Fautin, Halliday, Krell, Mawatari, Papp, Patterson, van Tol and Zhang.

Negative votes – 12: Bogutskaya, Bouchet, Grygier, Kerzhner, Kottelat, Kullander, Lamas, Lim, Mahnert, Pape, Rosenberg and Štys.

No vote was received from Song. Minelli, Ng and Pyle were on leave of absence.

Voting against the proposal, Kerzhner said that no ruling was necessary as both valid and invalid names can be cited as senior homonyms; such citations are not necessarily used as valid names and do not create obstacles to the application of Article 23.9. Štys, voting against the proposal, commented that the case presented two entirely independent cases, but went on to say that admittedly they are similar and the comments included in proposals (2) and (3) concerned both of them. Kottelat also indicated that the two cases should have been voted on separately, although he voted against both cases and thus did not split his vote. Grygier also indicated that the cases should have been separated, but voted against both cases. He commented further that the argument for conservation of *Cisseis* is a little stronger than for *Curis*, but both suffer from insufficient documentation of harm that would ensue from re-adoption of the older names.

At the close of the voting period on 1 June 2008 the votes were as follows:

Cisseis proposals (1a), (2a), (3a) and (4a)

Affirmative votes – 7: Bogutskaya, Fautin, Halliday, Krell, Mawatari, Papp and Zhang.

Negative votes – 10: Bouchet, Brothers, Grygier, Kottelat, Kullander, Lamas, Pape, Rosenberg, Štys and van Tol.

No vote was received from Lim. Alonso-Zarazaga, Minelli, Ng, Patterson and Pyle were on leave of absence.

Grygier, voting against the proposal, commented that there is insufficient documentation of harm.

No names are placed on the Official Lists or Indexes in this ruling.

OPINION 2215 (Case 3380)***Streptopelia risoria* (Linnaeus, 1758) (Aves, COLUMBIDAE): priority maintained**

Abstract. The Commission has ruled that priority is maintained for *Streptopelia risoria* (Linnaeus, 1758), the specific name of the ringed turtle-dove (ringed dove; barbary dove). A proposal to conserve its junior subjective synonym *Streptopelia roseogrisea* (Sundevall, 1857), the specific name of the African collared dove, was not approved.

Keywords. Nomenclature; taxonomy; COLUMBIDAE; *Streptopelia roseogrisea*; *Streptopelia risoria*; ringed dove; ringed turtle-dove; barbary dove; African collared dove.

Ruling

- (1) It is hereby ruled that priority is maintained for *Columba risoria* Linnaeus, 1758.
- (2) The name *risoria* Linnaeus, 1758, as published in the binomen *Columba risoria*, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3380

An application to conserve the name *Streptopelia roseogrisea* (Sundevall, 1857) for the African collared dove was received from Thomas M. Donegan (*ProAves Foundation, Reading, U.K.*). The senior subjective synonym *Streptopelia risoria* (Linnaeus, 1758) is in use for the domestic form of *S. roseogrisea*. After correspondence the case was published in BZN **64**: 108–112 (June 2007). The title, abstract and keywords of the case were published on the Commission's website. A supportive comment was published in BZN **64**: 192 and a clarifying comment was published in BZN **65**: 63.

Decision of the Commission

On 1 June 2008 the members of the Commission were invited to vote on the proposals published in BZN **64**: 110. At the close of the voting period on 1 September 2008 the votes were as follows:

Affirmative votes – 7: Bouchet, Brothers, Grygier, Kottelat, Lamas, Lim and Papp.

Negative votes – 10: Alonso-Zarazaga, Bogutskaya, Fautin, Halliday, Krell, Kullander, Pape, Rosenberg, van Tol and Zhang.

Minelli, Ng, Patterson, Pyle and Štys were on leave of absence.

Alonso-Zarazaga, voting against the proposal, said that the name *S. risoria* had been in common use and the selection of *S. roseogrisea* as the valid name would infringe on the Principle of Priority without need, following a personal preference of the author. He asked the Commission to place *Columba risoria* Linnaeus, 1758 on the Official List of Specific Names in Zoology. He further stated that decisions should be taken case by case and authors should not request the Commission to follow positions adopted for animals in other taxonomic groups, as in Opinion 2027, that

might not be applicable in this case. Halliday, voting against the proposal, said the reason for his decision could be found at the end of paragraph 6 of the case where the author announced his intention to designate a neotype for *S. risoria*, thus throwing the case into confusion. No information had been provided as to the existence of types of either *S. risoria* or *S. roseogrisea*. There appeared to be only one taxonomic species present and, before the Commission could make a decision about the name or names of this taxon, they would need information about the identity of the types, including the proposed neotype. The author could perhaps choose the type of *S. roseogrisea* as the neotype of *S. risoria*, and so make the two names objective synonyms. In paragraph 3 the author presented evidence that *S. roseogrisea* and *S. risoria* interbred freely, so should be regarded as a single taxonomic species. However, in the beginning of paragraph 6 he referred to them as 'these two species'. In view of the ambiguity over whether one or two species were involved, and in the absence of information about any existing types, Halliday could not vote in favour of the proposal. If the author should decide to re-write the proposal, Halliday suggested that he should delete the discussion of Opinion 2027 and Case 3010 which would invoke precedent from a previous case. As the author himself had stated, 'Opinion 2027 applies only to the species mentioned therein'. Kullander, voting against the proposal, said he disagreed with the arguments. He said that when there were two names for the same taxon one picked the oldest as valid. He further thought that the earlier similar case involving mammals was irrelevant and could not be regarded as a general precedent. Rosenberg, voting against, pointed out that the action requested should have been a reversal of precedence whenever the two names were regarded as synonyms and not a ruling that *S. roseogrisea* was not invalid. This would not, however, have affected his vote.

Original references

The following is the original reference to the name placed on the Official List by the ruling given in the present Opinion:

risoria, *Columba*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, p. 165.

Notice of closure of Cases

The following Cases, for which receipts as new applications to the Commission were published though the cases were never published in full, are now closed:

The '*Wiener Verzeichnis*', its correct title, authorship, publication date and nomina nuda proposed for butterflies therein: correction of errors in the Opinion 516 (Insecta, Lepidoptera, Rhopalocera). O. Kudrna & Belicek (Case 3241; acknowledgement of receipt published in BZN **59**: 70).

Crassolabium Yeates, 1967 and *Thonus* Thorne, 1974 (Nematoda, QUDSIANEMATIDAE): proposed reversal of precedence. R. Peña-Santiago & M. Ciobanu (Case 3438; acknowledgement of receipt published in BZN **64**: 210).

Lepas testudinaria Linnaeus, 1758 (currently *Chelonibia testudinaria*; Crustacea, Cirripedia, Balanomorpha, CORONULOIDEA): proposed conservation of usage by designation of a neotype. M.G. Frick (Case 3444; acknowledgement of receipt published in BZN **65**: 2).

Cylindrolepas darwiniana Pilsbry, 1916 (Crustacea, Cirripedia): proposed conservation of the genus and specific name by the designation of a neotype. M.G. Frick (Case 3445; acknowledgement of receipt published in BZN **65**: 2).

Paraelops cearensis Silva Santos, 1971 (Teleostei, Elopomorpha): redefinition of the holotype. F.J de Figueiredo, V. Gallo & R. Stefani Massa (Case 3447; acknowledgement of receipt published in BZN **65**: 2).

Synapsida, proposed replacement by Monapsida Willis, 2000. E.O. Willis (Case 3452; acknowledgement of receipt published in BZN **65**: 2).

Cercartetus nanus (Marsupialia, BURRAMYIDAE): proposed revision of authorship. J.M. Harris (Case 3454; acknowledgement of receipt published in BZN **65**: 81).

Homo antiquus Ferguson, 1984 (Mammalia, HOMINIDAE): proposed precedence over "*Homo antiquus* Adloff, 1908". W.W. Ferguson (Case 3432; acknowledgement of receipt published in BZN **64**: 209).

Modiola cinnamomea Lamarck, 1819: proposed conservation as the type species of mytilid bivalve *Botula* Mörch, 1853. K. Kleemann (Case 3430; acknowledgement of receipt published in BZN **64**: 138).

Desmognathus quadramaculatus Holbrook, 1840 (Amphibia, Caudata, Plethodontidae): proposed conservation of usage of the specific name by the designation of a neotype. J.A. Wooten & L.J. Rissler (Case 3427; acknowledgement of receipt published in BZN **64**: 138).

The published Case '*Rana ocellata* Linnaeus, 1758 (currently *Leptodactylus ocellatus*; Amphibia, Anura): proposed conservation of usage of the specific name by the designation of a neotype' W.R. Heyer, U. Caramaschi & R.O. de Sá (Case 3323 acknowledgement of receipt published in BZN **61**: 134; published in BZN **63**: 184–186) has been withdrawn by the authors. The case is now closed.

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Fucicola Gistel, 1848 (Crustacea) Op. 2204

Gigantopecten Rovereto, 1899 (Bivalvia) Op. 2203

Grandipecten Cossmann, 1914 (Bivalvia) Op. 2203

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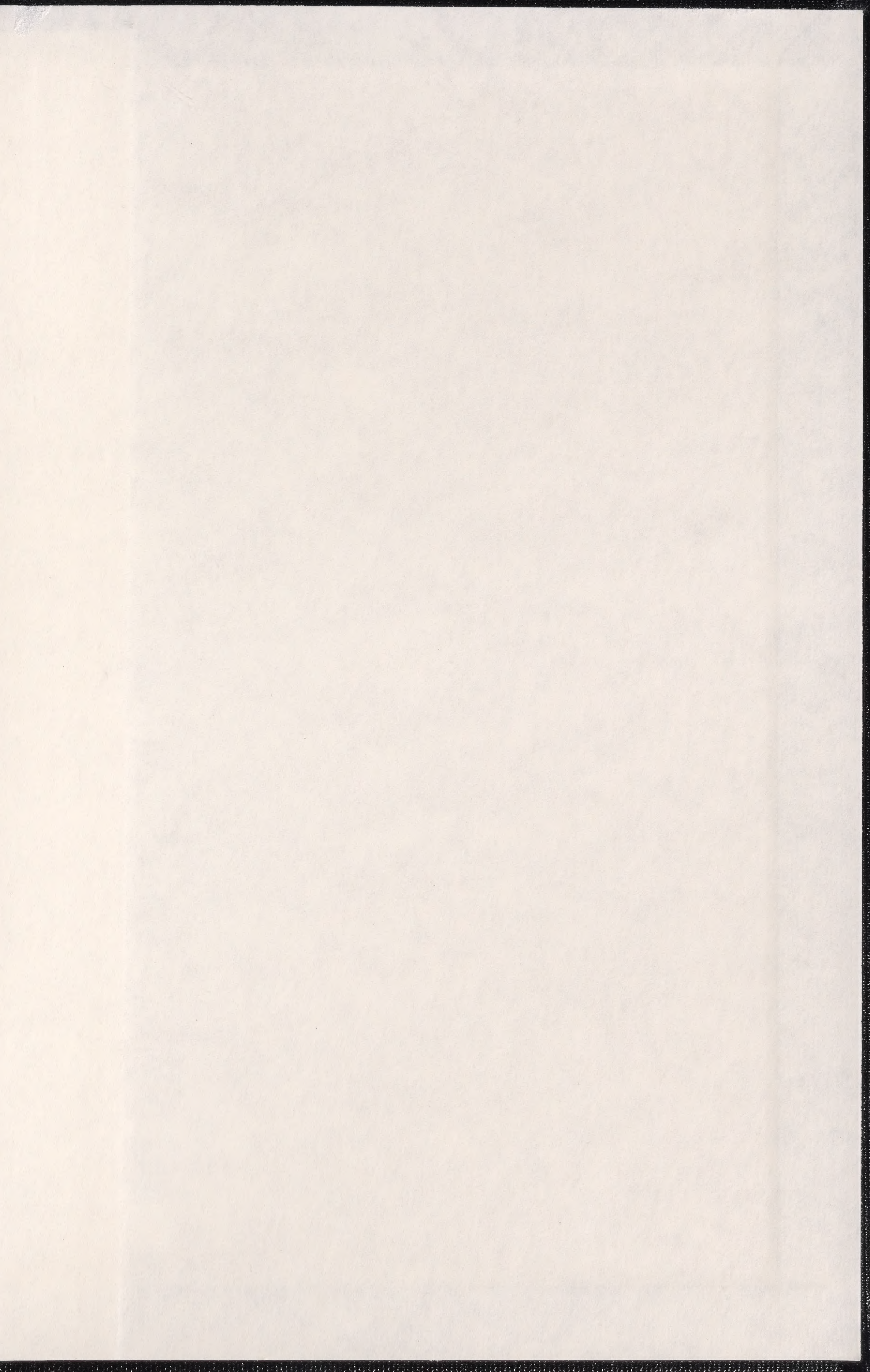
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